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The Causation of Epidemic Diseases.

A Paper Read Before the Wayne County Medical Society by Augustus Kaiser, A. M., M. D., Detroit, Mich.

ABLE and intelligent men, have in different ages exerted themselves, to fathom the influence of the heavenly bodies, upon the destinies of the inhabitants of this earth. It was taken for granted that some such influences really existed. "The stars do not lie," and, such a proposition being once taken for granted, what a wide scope is therebp opened, for an extravagant imagination!

Whatever foundations there may possibly be, for certain coincidences in time, between certain planetary movements, and certain terrestrial events, they have generally been ridiculously exaggerated, or distorted, by capricious explanations and fantastic conclusions. And thus it happened that misinterpretations and exaggerations led to a confusion of errors, which can be plainly traced back from century to century. Hence, whenever we read the history of an epidemic we almost invariably find so-called the cosmical phenomena noted, and enumerated among the causes of the universal mortality. Large comets have appeared of marked brilliancy, the sun has diminished in brightness, glaring meteors have shown themselves in threatening forms. Saturn and Jupiter have met in conjunction. All of these occurrences were terrifying and their causative connection with the prevailing calamities was, in former times, never doubted.

In regard to the so-called terrestial influences however, to which science has attributed great significance in connection with the origin of epidemics, the case is entirely different in that the relation between cause and effect is more traceable. These are regularfy enumerated in epidemigraphs. The first epidemic of which we have any authentic history, was preceded, according to Thucydides, who himself had an attack thereof, by repeated earthquakes, volcanic eruptions and inundations. Even in Athens, where it is well known this pest appeared during the time of the Peloponesian war, the Prytaneum and other public buildings were destroyed by an earthquake; and the many epidemics of the sixth century, principal among which was the abscess plague, were invariably preceded by earthquakes. Antioch was destroyed in 526 through an earthquake in which 250,000 human beings are said to have perished; an eruption of Mount Vesuvius laid waste Campania; Anazæbus in Sicily together with many other flourishing cities were dashed to ruins. A striking irregularity in the overflowing of the Nile was noticed; meagre harvest with famine followed, and towards the end of the century large tracts of country were repeatedly shorn by grasshoppers, particularly in France. Similar occurrences are reported as having taken place in the years of that fearful scourge known as the Black Death. Tornadoes, hurricanes, storms, unusual dryness, followed by unusually copious rains, etc., etc., were added to the frequent earthquakes which convulsed Europe and Asia in these days. Similar phenomena have in more recent times been witnessed, either immediately before, or during the progress of an epidemic. We have an example of quite recent date (1868). Not more than eleven years ago Virchow pointed to the fact, that at the very time of the appearance of the hungertyphus in east Prussia, storms and earthquakes were raging on the northern hemisphere with unusual violence, that Mount Vesuvius was again in action, and that several new islands had emerged from the bosom of the ocean.

Now what is to be said of all this? The coincidence in time between such extraordinary events and epidemic diseases has so often been proven that the relation between them seems undoubted. The connection between them is sufficiently transparent. When floods destroy crops, and tornados and earthquakes many habitations, when unusual rains create marshes to generate dangerous exhalations, or when long drouths expose the earth, hitherto well covered with water, to the putrefaction of plants, the connection between cause and effect is apparent. But it frequently happens that the irregularities in the atmosphere and other disturbances occur in places so remote from the headquarters of the epidemic, that no such direct connection between them can be thought of. It is upon air, water and locality chiefly, that scientific observations have based the causation of epidemics.

Hippocrates, rightly called "the father of medicine," on account of his having first introduced method into the observation and the treatment of disease, has even left us a small book which treats of the influence of those "three" upon the origin of disease. Bad, impure and unhealthy atmosphere have always played the chief role in epidemics, both in the eyes of the physicians and the public.

Diadorus, who also described the Athenian pest, attributed the chief cause thereof to the air, which, according to his views, had become vitiated, partly due to the over population of the city, partly by stagnant waterpools created by unusual rain and partly to the absence of the "Etesien" through which the excessive summer heat was generally modified. Gœthe, the greatest of German poets, has graphically personified the spreading of disease by means of foul air; see the words of Wagner to Faust—in "Faust." As a matter of fact, many epidemics are really propagated by means of the air; certainly not generally in such a manner that the causes of disease are carried to great distance by the winds, yet so that they are inhaled with the atmosehere in the immediate vicinity of their birth place. For in many cases of undoubted contagion no other than this explanation can be given.

With regard to water. Through every generation the germ of disease has been sought in this elemeni. In the earlier and the middle ages history speaks frequently of poisoning wells with criminal intent. In the city of Athens, says Thucydides, the plague appeared very suddenly, attacking first of all the inhabitants of Pirœus so that the cry was raised that the Peloponesians had poisoned the cisterns. Such accusations sometimes appear as doubtful and obscure rumors; at times, however, they have attained to the form of unquestionable certainty in the minds of the people and the authorities, and have excited innumerable sacrifices to the blind wrath of the mob to the pationate blindness of egotistic executives. Of what has not the unfortunate Hebrew race been accused in this connection! It was not enough to accuse them of occasionally slaughtering Christian children; of desecrating whatever was not sacred to the Christian, but they were frequently accused in addition to all this, of poisoning wells for the purpose of ridding themselves of their persecutors, and they often had to suffer severely from the fanatacism of such belief. In the days of the Black Death it was rumored all over Europe that the Jews of Toledo were led to the commission of these crimes, by letters, money, etc., etc., from secret leaders. The accused were convicted in every form and manner or driven to a confession and then, according to "sentence and right," burned at the stake together with their co-religionists. Numerous victims to this frenzy, fell in Switzerland, France and Germany. In our days Jews are no longer burned at the stake, nor do civilized nations of to-day without any further ado attribute the origin of epidemics to criminal and intentional well poisoning. Nevertheless, medical science seeks the germ of disease in the water of which we drink. This is particularly true with regard to the plague of the nineteenth century, the cholera. The most extensive observations of this kind were made in London, and these were for a time considered conclusive. This giant city receives her drinking water from various water works of which each has its separate system of pipes. By these means the city may be said to be divided into so many waterfields. Now it was asserted that whilst in certain so-called waterfields, in which the water was inferior, one epidemic raged with unusual violence, a subsequent epidemic, after the introduction of better water, proved itself exceptionally mild. Something similar had been observed in Holland even at an earlier date, where impure well-water was used for general purposes. But if these facts are examined more minutely, as was done by Pettenkoffer, and if examples are collected, in which similar conditions proved null and void, then we have to concede to this investigator, that this drinking water theory was exaggerated to some extent. A number of observations have been made, which if not too skeptically judged, would lead to the conclusion that the spread of cholera is to some slight extent, at least, connected with the condition of our drinking water. But, it would still be a great mistake, to suppose that even in those cases the disease bringing substance must necessarily have been in the water. Water may be very bad, it may contain large quantities of decomposed matter of great variety, it may be turbid, and send forth offensive exhalations, those who drink it may also become sick, but unless the cholera have previously been brought into the neighborhood by other means, they will not contract the disease. The same is true with regard to the air. How often does it not happen, especially among the poorer classes, that the air in certain rooms or houses is damp and impure, containing gases whose injurious effects upon man are beyond question. From such a state of affairs bodily health may certainly suffer in various ways; but, there is no proof, that epidemics owe their origin exclusively or even chiefly to such circumstances. A certain something more is essential. This "something more" is often at the time of an epidemic to be found in the air, sometimes also, perhaps, in the water; but it is always a something distinct from that, upon which our mind rests, whenever we speak of foul air or water. These substances can always act only as predisposing, more or less enervating the organism of the human body, thus courting the epidemic.

War and famine are the two ablest champions for the spread of epidemics. The three words, war, pestilence, and hard times have therefor in all ages been ranged together as an inseparable trio. But independent of such general causes, each individual has it in his power to render parts of his own organism, more susceptible to the poison of epidemics. Among the means to this end, we can enumerate poverty with all its sequences, intemperance, gluttony particularly with regard to certain victuals, colds, and above all melancholy and dejection. Experience teaches that in every great cholera epidemic, it frequently happens, that persons get sick, not alone from the fear of the disease, but also from a dread of this fear. Hence it follows that one may greatly diminish the degree of danger to his own person by avoiding certain irregularities, And this is really almost the only protection that can be afforded against the contagion.

Vaccination, as we all know, is the only protection against that loathsome disease, smallpox. We also know that most of the epidemics attack man but once. Science has not as yet solved the proper explanation of this phenomena, although I believe

she soon will. Let us remember that the entire organism of the human body in all its parts is never affected in any one instance of sickness, contagious or otherwise, but that the disease — bringing causes act directly only upon a certain number or set of elementary organs of the human body. A given poison may enter the stomach or the lungs and thence reach the blood through which it can be brought into contact almost with each and every part of the body; nevertheless we often find that but a very limited portion of the human organism becomes affected, possibly only a certain number of elementary organs having analogous functions, because, perhaps, they alone are so composed or arranged as to have some chemical or mechanical affinity to the poison. Its affects on the rest of the body are not noticeable. When, therefore, other organs become abnormal in their actions it is not because of the direct causation of the poison, but in consequence of the diseased conditions of the organism first attacked. For where a part suffers the whole must suffer. This is true, not only with regard to the organization of society or of states, but also in regard to the small organism of man, who also is a social institution according to the teachings of Virchow. Now it may readily be supposed that these elementary organisms which form the seat of disease are destroyed by the contagious substance. If, therefore, at a later date this poison should again happen to re-enter the same body, it cannot find those structures upon which alone it can take effect. Nothing can then arrouse its dormant powers so that it completes its course through the system without injury. Or whilst it does not actually annihilate the substances which it had first attacked, it still changes their nature to such a degree as to render them for a long time, if not for ever, insensible to its influence. Thus also we explain the singular fact that persons can accustom themselves to poison. The striking efficacy of vaccination has probably no other foundation.

This "certain something" from which the epidemic itself really originates has been sought for not only in the atmosphere and the water, but also in a third medium, namely, the earth and its products. Although Pettenkofer was not the first to advance the idea of a relation between certain telluric conditions and the spread of epidemics, he sought with great preseverance to find out the exact nature of those relationships. His name has, therefore, become interwoven with this doctrine to such an extent that we speak of a Pettenkofer cholera theory. It is no longer doubted that cholera is propagated by human intercourse; is carried to non-infected districts by parties coming from infected localities, But, on the other hand, it has also been observed that certain localities, often very extensive, have shown no susceptibiliy, for the infection. In 1859 cholera was raging in Hamburg, Lübec and Mecklenburg. Intercourse with Berlin, was not interrupted, although several parties coming from Hamburg and Mecklenburg died at Berlin, as also some few who had come into the closest contact with those, but the epidemic did not spread here. In 1866 we have the reverse, when Berlin was suffering from a very severe epidemic whilst Hamburg, Lübec, and Mecklenburg were spared. Pettenkofer, therefore, comes to the following conclusions: The noxious substance which is brought into any given neighborhood by intercourse he terms the choleragerm, which in itself is ineffectual. This choleragerm generates disease only upon its combination with a certain hypothetical substance, these localized for the time being, yet in itself also unhurtful, which he calls the cholera substratum. These two in combination constitute the so-called cholera poison. But here we meet with a further difficulty in the fact that whilst it often happens that an important case of cholera fails to produce an epidemic, it, nevertheless, does not remain entirely without consequences.

This may repeatedly happen in a given locality whilst at the same time in other localities in communication with the first, the disease may have grown to an epidemic. Pettenkofer assumes to explain this also. He claims that in such cases the cholera poison is imported, that is, the substance arising out of the combination of the choleragerm with the substratum. This, however, is said to be of a very perishable nature, hence cannot create an epidemic, losing its force after a very limited number of isolated attacks.

The cholera substratum is, according to Pettenkofer, generated in the upper layers of the earth, and its development is said to be caused by an unusually rapid decrease of the humidity of these layers. Let us remember, however, that Pettenkofer himself applies to his theory the epithet "hypothetical."

The classic land of science is also the classic land of intermittent fevers. In many quarters of Piedmont, in the low plains of Lombardy and Venice, in the celebrated marema of Tuscany and Campagna di Poma, in the so much decried Pontinian marshes, in the Neapolitan Terra di Lavova and Calabria we find remittent fevers constantly present and often of a fatal type. The Italian word "malaria" has been adopted by the medical profession as a word to denote the prime cause of intermittents. The word itself signifies "bad, or foul air," which is really correct, since the poison is, in most cases, primarily absorbep by the air. But it is equally certain that it also originates in the earth. We have numerous cases where persons were attacked by intermittent fever after remaining for some time near marshes, damp meadows, or newly plowed fields. The tearing up of street pavements has been observed to cause intermittent fever. In Texas, the inhabitants are sure to suffer from intermittents if their houses stand to leeward of newly plowed fields. In Corsica, intermittents are found even on the high, rocky ground, provided the wind blows over marshes towards them. Dr. Salisbury, an American physician, has examined the exhalations of the earth in the fever valleys of the Ohio and the Mississippi, where he found small vegetable structures, exactly similar to those found in persons suffering from intermittent fever. He pronounces them the germs of a cryptogamic species of plant. He, moreover, took earth filled with these vegetable structures and placed it in the rooms of four young men, in a fever free locality, whereupon those four individuals soon had intermittent fever. But Horatio Wood, of the University of Pennsylvania, examined Salisbury's preparation in 1868, and found that he had mistaken many little foreign matters for germs. The so-called intermittent fever fungi theory does not, therefore, seem to stand on a

very reliable footing.

We, moreover, know of another product of vegetation as an essential cause of epidemic diseases. I refer to the ergot, chiefly found on rye, as a parasitic fungus, the developement of which is particularly favored by a hot summer, preceded by a wet spring.

The partaking of these fungi, with regard to the nature of which botanists differ, leads to peculiar, at times spasmodic, at times inflammatory diseases, which have been known as epidemics almost ever since the time when rye was first cultivated to any considerable extent.

St. Anthony's fire and erysipelas belong to this category. A French physician, on the occasion of an epidemic in Bologna, traced back the causes of the disease to the eating of the ergot of rye, and this has since been repeatedly confirmed (See Huseman's works).

But parasites of superior organization, trichinosæ, have commanded the most attention, and rightfully, for this discovery is one of the brightest achievements for which the medical profession is indebted to the microscope. The discoverer of trichinæ, Frederick Zenker, Prof. of Pathological Anatomy, was, some nineteen or twenty years ago, engaged in the examination of certain diseased muscles. It so happened that in the year 1860 a servant girl was brought into the city hospital at Dresden, where Zenker was at that time practicing, with the symptoms of a very severe disease of the muscles. The girl died in a fortnight. Zenker's *post mortem* proved that there was no other cause for death except numerous young trichinæ, found in the muscles. A further investigation showed that she had, but a short time before her admission to the hospital, assisted in butchering and dressing a hog. Zenker procured some of the pork of the hog, and found that it contained an innumerable quantity of trichinæ. Experiments were immediately made in feeding this pork to lower animals. Virchow, who at the same time had nearly, and independently of Zenker, discovered the manner in which the infection of trichinæ is brought on, was present at the above named experiments, and in a few weeks the facts concerning the whole teaching of trichinæ became one of the best known chapters of the whole pathology.

Infections caused by organisms which belong to the lower forms of living beings, and which stand on the border between the structures of plants and animals, are, however, not so well understood. They are generally called schizomocites, or slit fungi, and are subdivided into vibriones, bacteria, zoöglœa, spirillums, etc. Our knowledge of the action of these structures upon the human organism has recently advanced very materially, and the late Franco-Prussian war has, alas, furnished rich material with which to further our knowledge in this direction. We all know how numerous the deaths in the lazarets were. Those who escaped on the battle field were carried off in the lazarets, not alone by typhus, dysentery, and other internal ailments, nor by the immediate results of serious wounds and operations. It also frequently happened that where the wound was small and the healing had progressed favorably to a certain point, suddenly high fever and serious symptoms appeared, to which the soldiers generally succumbed in a few days. Nearly three-fourths of those who died in hospitals during the war, died from these injurious conditions. These are well known, and have frequently been attributed to the introduction of pus into the blood. But in many cases of this nature, the introduction of pus into the blood cannot be proven, and we, moreover, know with certainty that not every kind of pus, even if it enters the blood, can effect a poisoning. More recent researches, instituted by Hütter, and especially by Klebs, have shown that in those cases we have to deal with the fact that minute organisms are taken up in the blood, and other parts of the body. From the wound they are carried into the blood, either in close connection with the pus, or otherwise. Klebs believes these organisms real fungi, and terms them "microsporon septicum." By means of his repeated observations and experiments he came to the conclusion that those fungi locally destroy the structures, produce pus, pass into the blood and into the lymphatics, and are by these carried through the body into the lungs, kidneys, liver, spleen, causing secondary inflammation, which is so justly feared. These results are based upon such extensive observations that their correctness cannot be doubted. Klebs did not content himself by merely showing the presence of those structures on the surfaces of the wounds, in the blood and internal organs containing pus, but at his instance experiments were resorted to on lower animals in order to prove the poisonous action of these fungi directly. With this object in view he filtered fluids containing fungi, which, being injected into rabbits, caused a high fever, which subsided in from one to three days. Repetitions of this experiment invariably produced the same result. Suppuration never took place. On the other hand, whenever he injected fluids containing fungi it killed the animals within a few days. The consequence of such injection was high and continued fever up to death, with local suppuration of the parts.

We may assume that the transmission of these organisms is effected chiefly by the atmospheric air, and under this supposition Listerism seeks to protect the wound from those germs in the atmosphere. It has already been known for years that the process of putrefaction and fermentation will not take place in a fluid otherwise well adapted thereto if the neck of the vial containing it is secured by a cork of wadding. The organisms floating in the air which cause putrefaction and fermentation are entangled in the wadding, and do not reach the liquid, which hence remains unchanged. Lister, therefore, recommended and used waddings for dressings of wounds, in order to keep away the air which might come in contact with the wound at repeated dressings, and sprays of diluted carbolic acid were created by means of an atomizer, in order to destroy the small organisms as might be present. This antiseptic spray was also used at the first dressing, and during an operation, to protect fresh wounds from every infection. Lister's results in this line are brilliant. Large wounds, caused through operations, heal readily, partly without suppuration, and Lister asserts that, during his years of service in the Edinburgh Hospital, he had no case of malignant wound fever.

Similar fungi organisms. as Klebs has declared them, to be the cause of wound diseases, have been declared by others to be the cause of diphtheria. Prof. v. Recklinghausen has observed such organisms within pus pustules, in different infectious diseases, and Prof. Waldyer has lately found them in the lying-in chamber, causing destructive

diseases. Still, the last mentioned observer insists that, although these organisms have been found in the lying-in chamber, they are not to be regarded directly as the essential cause of disease; but that we should rather accept the possibility of their being only an aggravation of disease. Possibly the judgment of this celebrated observer may be ironical.

As early as the year 1848 Virchow already pointed to the fact that vast numbers of such minute living beings were to be met with in cholera patients. These living beings were afterwards described by other observers, and Paccini was the first who, based upon Virchow's theory, advocated the idea in 1854, that in them we have the essential substance of cholera. This, however, is not yet proven, for these structures harmonize morphologically in all essential points with those organisms found in wound fever and diseases of the lying-in chamber, as well as in numerous other affections. Virchow even found them, some years ago, in the corpse of a man who had poisoned himself with arsenic, hence in a case where the cause of disease and death could not be looked for in these organisms. Here we invariably have numerous minute roundish bodies, which multiply vividly, now assuming the form of chains, now again in compact or loose groups, and then again appearing more isolated, and often endowed with very perceptible locomotive faculties. Those structures, morphologically speaking, cannot always be distinguished from the small organisms, which are the cause of formation of acetic acid from alcohol, the formation of lactic and hyteric acid from sugar, and which are always found in putrefying organic bodies.

De Barye, a man of great research regarding the lower forms of plants, has not been able to decide the principal alternative upon which the judgment regarding the signification of these organisms in pathology is based. He says: "Either one and the same species and form of these organisms may vegetate in media of very different and special quality, and may cause, depending upon the state of the nature of these mediums, different products of decomposition; or, these organisms belong to different species, requiring certain media, in which alone they can act, whose minute morphological distinction is not yet, on account of their similarity and smallness, defined." Perhaps these minute organisms are nothing more than vehicles, carrying the poison from one to another. At all events we must confess that hitherto we have not been able to say that the so-called germs, in the greater number of epidemic diseases, are really such. Nevertheless it is true, that the epidemic diseases are, in the proper sense of the word, diseases caused by poison. This is shown with certainty from its temporal and extended appearance, from its way of spreading, from its stormy course, and from the correspondence of its appearance in isolated cases of the same form of disease. But even should we once finally find that all plagues, pestilences, etc., are nothing else than poisonings from living organisms, even should we succeed in demonstrating that for each epidemic there is a distinct form of such organism, even then, it seems to me, that it will still be exceedingly difficult to prevent the development and the spreading of plagues. For these organic germs seem to originate so mysteriously and so rapidly that, at least for the present, we cannot conceive the possibility of destroying them at the beginning of their first development, much less so when they are already developed and spread. Raphania still exists, although we have been acquainted for over two hundred years with the organisms of plants which generate it.

Many facts seem to show that the germs from which numerous, yes, perhaps from which all epidemic diseases are hatched, exist in many different places, for instance, in the earth and its products and in the water.

As for cholera, we are almost certain that its place of birth is lower Bengal, at the outlet of the Ganges and the Brahmaputra. From these places the poison spreads, chiefly, if not exclusively, through commercial intercourse, and with each new case of disease a number of new germs of disease are developed. The total eradication of a given plague can, therefore, as it would seem, be accomplished only by radically changing the vegetative capacity of its birth place. But how distant the possibility of such a thing appears to be; how visionary were the ideas of Stamm, who, some thirteen years ago, tried to make propaganda in this direction? The most powerful of earth cannot dry up marshes, narrow the boundaries of rivers, render arable large tracts of waste land, avert war and failure of crops, do away with misery, poverty and hard times. Even Napoleon the first, with his extraordinary power, was not able to dry up the Pontinian marshes.

Epidemics are truly diseases of culture at large. Their germs are to be found where man has not yet learned, or where he has forgotten, to subjugate fields and woods, rivers and meadows, or there where, through scarcity, war or revolution, a transient interruption is caused in the regular and quiet development of the lives of the masses. We are by no means as yet secure against the possibility of the appearance and not yet dreamed of form or phase of plague. And yet, as we read the history of epidemics, we are buoyed by the consoling conviction of man's progressive powers and capabilities, and hence live in hopes that a time will come in which the germ of pestilences will have been destroyed, finally and forever. The trying and convicting of witches, the burning of Jews are, it is to be hoped, past forever.

Never, says Hæser, has man so emphatically proven that he is destined for a constantly progressive existence, as well physically as mentally, as at the time of black death, for a younger and more vigorous race arose from the graves of the victims of this plague to meet the requirements of new and improved ideas.

[Written for the Therapeutic Gazette.]

Reports on New Remedies.

By W. W. Morrison, M. D., Rockford, Ill.

CASCARA SAGRADA.—Of the merits of this drug as a remedy in constipation it would be superfluous for me to speak. No article of the materia medica has a place more fixed in therapeutics than this. I apprehend, however, that it is not generally supposed to be curative of the opposite condition to constipation—diarrhœa. The following case will show that it does relieve diarrhœa and that it is not impossible

that it may yet come to be regarded as a valuable remedy against this condition. My own daughter was taken last October with a severe attack of cholera morbuswith dysenteric symptoms. After the acuteness of the attack subsided, she was left with a diarrhœa which, in spite of the usual remedies, continued until February. At this time I received a sample of cascara sagrada from my friend Dr. R., of Knoxville, who advised me to try it in an obstinate case of constipation I had on hand. The doctor's views of the modus operandi of the drug induced me to give it a trial on my daughter. If it cures constipation by imparting tone to the muscular fibre of the intestine, might it not also relieve a diarrhœa which was evidently due to depreciated tonicity of the mucous and muscular tissues of the bowels? I accordingly gave ten drops of the fluid extract, which I repeated each night for three successive nights. The relief was remarkable for its promptness and its completeness. The discharges, which before had been mixed with a white mucus and extremely offensive, at once changed to their natural color and soon to their natural consistence.

I report this single case to direct attention to what may prove a very valuable property of this drug. My observation will certainly lead me to have recourse to cascara in the next case of this nature I may be called upon to treat.

Gentiana quinqueflora.—My observation with this proposed substitute for quinine in intermittents is confined to one case. In this it succeeded in averting the paroxysm. The patient, a child, had been having distinct attacks of ague, without the well marked symptoms which characterize the disease in the adult. My instructions were not exactly followed in the first instance and the child recovered, but with diminished severity. The proper administration of the medicine succeed completely in preventing a return.

Rhus Aromatica.—I was called March 21st to see the Rev. H. J. H., æt. 80. Found the old gentleman low spirited and with no hope of relief. His ailment was enuresis, from which he had suffered for several years, to a degree necessitating his confinement to his home and preventing his visiting his children. I ordered rhus aromatica, fluid extract, in twenty drop doses four times a day. He reported relief after the first dose, and after a few doses had been taken he could retain his urine for three or four hours. The relief, however, was not complete, because if he slept over three hours there was an involuntary micturition. I increased the dose to thirty drops and at the end of two weeks the old gentlemen reported that although not entirely well, which he never expected to be, his life had been made endurable, and that if he should not further improve he would still have occasion for great thankfulness in the improvement wrought by the medicine.

By J. C. Dreher, M. D., Smithsville, Ohio.

Berberis Aquifolium.—I was consulted by a patient suffering from intermittent fever who had taken quinine from the hands of other physicians to a sufficient extent to produce the characteristic head symptoms without securing a discontinuance of the paroxysms. His tongue indicating biliary derangement and a foul condition of the stomach, I gave him a cathartic dose of calomel, and followed it *secundem artem* by a saline purge. After this had thoroughly purged him I again gave him quinine in full doses, disguised to conceal it, as he was determined to have no more of the drug. The quinine, however, still failed to check the recurrence of the chills. Although given daily his ague returned. I now gave him the following:

℞ Ext. Berberis aquifolii fluidi.
" Cascaræ sagradæ fluidi āā ʒ j.
Syr. Sennæ co. ʒ ij.

M. Sig.—A teaspoonful four times daily before meals and retiring. Five days after he came into my office saying, "Doctor you have struck the medicine. I want my bottle filled with the same. I feel ever so much better, have had no symptoms of a chill since taking this black stuff." He was now directed to take it but three times daily after meals, as it acted too freely on the bowels. He has enjoyed excellent health ever since. Has fleshed up wonderfully, and his countenance is as clear as a rose. Since then, I have used the same remedies in a great many cases, similar in character, with good effect.

In dyspeptic constipation, and especially where the person has suffered from malarial poisoning, I have used the following with the most gratifying results:

℞ Ext. berberis aquifol. fluidi.
" cascaræ sagradæ " āā ʒ j.
" œnothera biennis fl. ʒ jss.
Syr. sennæ comp. ʒ iijss.

M. Sig.—A teaspoonful three or four times a day, according to effect on the bowels. The syrup sennæ should be hot when mixed with the extracts.

A very obstinate case of eczema capitis yielded to the following:

℞ Ext. berberis aq. fl. ʒ ss.
Syr. rhei ar. ʒ ij.

M. Sig.—A teaspoonful ter in die.

Locally.

℞ Goa powder, grs. xv.
Vaseline, ʒ ss.

M. Apply morning and evening, washing off with solution of borax once daily. The patient, æt. 10 months, presented the worst case of the disease I ever saw. It was entirely well in less than three weeks.

Eucalyptus Globulus.—I have used in many cases of bronchial catarrh, as well as in malarial fevers, with the happiest results. I have treated a number of cases of malarial fever, with typhoid symptoms, with eucalyptus alone, without losing a patient.

By C. W. Davis, A. M., M. D., Indianola, Iowa.

Liquor Ergotæ Purificatus.—I desire to report a remarkable result following the employment of liquor ergotæ purificatus. A case of prolapsus of the rectum had resisted the treatment of five or six physicians and several drug stores, for twenty-one days. The patient was 44 years of age. He had dysentery, and, as a sequence, prolapsus of the rectum. The doctors had reduced and manipulated the gut so often as to have caused, when I saw the patient, in addition to the swelling and tumefaction, to twice its normal size, extensive abrasions of the surface. I had procured a pound of liquor ergotæ purificatus some time before and found it so reliable as an oxytocic and hæmostatic, properties due to contraction of the unstriped muscular fibre, that I

gave the patient thirty drops every two hours through the day. In less than twelve hours the tumefied condition was gone, and in forty-eight hours the rectum had returned to its natural situation. The patient recovered entirely in a few days with no more rectal trouble.

By H. M. Field, M. D., Newton, Mass.

Rhamnus Purshiana—My attention having sometime since been called to this drug as a gentle peristaltic stimulant and regulator of the bowels, I was induced to accord it a trial. I wanted a remedy which would act in this way but had never succeeded in finding it. My trial of cascara sagrada has been attended with such marked success as to draw from me this expression of my high opinion of it. Its success has been especially marked in certain obstinate and chronic cases of constipation for which I had despaired of finding such a means of relief as was desired.

If my experience with the remedy continues as it has up to the present, I shall take great satisfaction in recommending it to my medical class.

Lactated Pepsin.—I am very much satisfied with my trial of lactated pepsin, also, and am now using it to the exclusion of other pepsin.

[Written for the Therapeutic Gazette.]

Piscidia Erythrina—Jamaica Dogwood.

By J. J. Mulheron, M. D., Professor of Materia Medica and Therapeutics in the Michigan College of Medicine.

THE man who would offer a substitute for opium, that is, an agent to take the place of opium in all the conditions to which that drug is applicable, would very justly be regarded with suspicion by the intelligent practitioner. The thoughtful physician would hesitate a long while before discarding opium, not only for any other single drug, but even for all the other articles of the materia medica combined. Its properties are sufficiently varied, and its range of applicability sufficiently extensive to meet at least some of the indications in the vast majority of human ills. It is, however, not a perfect remedy. Not only have we agents which have more pronounced individual properties, but we have, also, others which, while nearly as effective in some particulars, are attended by none of the drawbacks inseparable from the employment of opium. It is not necessary to give instances to illustrate this proposition; they cannot but suggest themselves to the practitioner.

The grand property of opium lies in its power to relieve pain, and "to steep the mind in forgetfulness." So thoroughly does it do this that it is almost universally employed to that end regardless of its after effects. The agent which, barring idiosyncrasies, possesses the narcotic and anodyne proties of opium without its disturbing effects on the physiological functions of the system, has ever been the desideratum of medicine. Does nature contain in her storehouses such an agent? Possibly she does, but certainly the explorer has not yet discovered it.

I secured last fall a sample of the fluid extract of Jamaica dogwood for the purpose of testing its alleged narcotic and anodyne properties. The claims made for the new drug were based on reports from men whose veracity it would be unfair to question, and whose ability to form opinions as to its merits was attested both by the position they occupied as practitioners, and by the institutions on whose diplomas they practised. I honor the conservative physician; he is the pillar of medicine; but the desire, through practical clinical tests, to add to the list of reliable remedies is not inconsistent with true conservatism, while the refusal to accord a trial to the new is too frequently not an evidence of conservatism so much as a mark of prejudice.

The first case in which I administered Jamaica dogwood was that of a Mrs. B., æt. 32, and married eight years but without issue. She came under my care a few months previously suffering from pelvic cellulitis, from which she recovered without suppuration, hot water injections and opium suppositories being the principal agents employed. The inflammation was unusually severe and extensive, and Dr. I. S. Hamilton, of Tecumseh, who had treated the lady in a previous attack, was sent for to see her with me. Previous to this attack Mrs. B. had had severe attacks of ovarian neuralgia. After her recovery from the inflammation the neuralgia occurred more frequently and with increased intensity. Morphia in large doses hypodermically administered was necessary to relieve the excruciating pain. The after effects of the morphia were, however, so disagreeable as to cause a wish for another anodyne, and I determined to try Jamaica dogwood, which I gave in twenty drop doses of the fluid extract of the drug to be repeated every two hours until relief followed. The first dose allayed the pain very materially, and shortly after the second dose it entirely disappeared. This was the history of repeated attacks which she suffered during the course of constitutional treatment, of iron, strychnine and quinine, on which she was placed and which was probably instrumental in the subsequent immunity from attacks.

Case 2. Mrs. M. had two months previously suffered from an attack of hemiplegia. The occasion of my being sent for was the annoying, wearing pain she experienced in her spine, located through the extent of the dorsal region. Because of its excitant effects in her case, morphia was not desirable, and chloral hydrate and bromide of potassium had been tried without benefit. I ordered Jamaica dogwood in commencing doses of ten drops of the fluid extract, but though perseveringly administered, it disturbed the stomach, occasioning vomiting, to such an extent as to necessitate its discontinuance without having secured from it any relief.

Case 3. J. B. suffered from facial neuralgia. Twenty drop doses gave him as prompt relief as he had previously experienced from the hypodermic use of morphia.

Case 4, occurred in my own person. I had suffered a good deal of pain from a carious tooth, and had lost a night's rest through the tormentor. The pain suddenly left in the morning while I was on my way to the dentist's, and as it did not recur during the day, I temporarily changed my determination to have the tooth extracted. At nightfall, however, the pain returned with redoubled violence. Having a sample of the fluid extract of Jamaica dogwood in my office, I saturated a piece of cotton wool with it and applied it to the cavity. The relief was almost immediate, and lasted throughout the night.

The above notes are given, not by any means as sufficient evidence to establish the claims which others have made for this drug, but merely with the object of assuring others that Jamaica dogwood is an article possessed of certain anodyne properties, and as a possible justification for them to accord it a trial. In the two cases of internal administration in which it acted so promptly and successfully there was not the slightest unpleasant after effect. Whether the disturbance of the stomach it caused in the case in which it was found necessary to discontinue it, was due to any inherent property of the drug, that single case is not sufficient to determine. That the drug is an improvement on opium as far as the after effects are concerned would seem probable from these two cases. But it will, of course, require more than these cases to establish even this claim, and a great many more to establish its claim to rivalship with opium as an anodyne.

(Written for the Therapeutic Gazette.)

Examination of Various Commercial Samples of Bromide of Ethyl,

By Carl Jungk, Ph. D.

IN the last number of the GAZETTE I communicated to the editorial department a notice of various reactions characteristic of bromide of ethyl, with a view to aid the detection of possible impurities in commercial samples. I complete my essay by presenting in this article results of the examination of nine different samples of bromide of ethyl. The first seven were obtained in the market, while No's. 8 and 9 have been prepared by myself. The sample numbered eight had been previously exposed to direct sunlight for twelve days in a bottle half filled.

No. 9 was freshly prepared and the portion having a constant boiling point of 36½° C. was selected for making the comparative reactions. The variations of specific gravity and boiling point demonstrate conclusively the existence of a great difference in the character of the preparations examined. These variations are not so much due to the possible differences in methods of manufacture as in the process of purification employed, and the greater or less completeness thereof. It appears that a bromide of ethyl is usually considered sufficiently pure when it evaporates from blotting paper without leaving any odor, besides having a neutral reaction and does not sustain any loss by washing with water. That a given sample may comply entirely with these requirements and still be quite impure is shown by the accompanying table. Whosoever will take the pains to prepare a bromide of ethyl that will satisfactorily pass muster in all respects, as is the case with No. 9, will become thoroughly convinced that it is absurd to talk of preparing such an article for sixty cents per pound, the possibility of which has been asserted recently. Not a single sample had the boiling point of 41° C.

On referring to different authorities for information regarding the specific gravity and boiling point of bromide of ethyl we find a strange variation in the different values. The specific gravity is given by

Pierre at 1.4733 at 6° C.
Mendelejeff at 1.4189 at 15° C.
Bonnet at 1.355 at 10° C.
Others at 1.473 to 1.419.

The boiling point is stated to be by

Regnault, 38.37.
Bonnet, 41.0.
Stillé and Maisch, 40.7.
Others. 41.0,

From the above we must conclude, premising that the different determinations have been made with exactness, that the different samples did not coincide in their properties and could not possibly all have represented the compound in a state of purity. If pure bromide of ethyl is left for about an hour in contact with strong alkalies, it does not part with any of its bromine nor suffer decomposition in any other way. It is not attacked by any oxydizing or reducing agent if applied singly at ordinary temperatures.

Pure bromide of ethyl, when its vapor is brought into contact with vapor of metallic sodium and the products condensed, does not furnish any formic acid in the distillate, but the gases formed, namely, ethylene and methylene, may contain traces of hydrogen bromide if the quantity of sodium vapor has been insufficient to effect entire decomposition. With the formation of sodium bromide occurs also a deposit of carbon, which results from the decomposition of a portion of the ethylene into methylene and free carbon. When the gases formed are agitated with water and the aqueous solution treated with solution of potassic permanganate or potassium bichromate no decolorizing of the liquids takes place. A precipitate or turbidity may, however, be obtained with lead acetate, which precipitate is soluble in acetic acid, indicating H Br.

When two fluid ounces of ethyl bromide were distilled with sodium amalgam and water (the distillate being returned once) the quantity was reduced at first to ten fluid drachms, and at the next distillation to six fluid drachms, which shows conclusively that decomposition takes place under these conditions. By a continuation of the process the entire quantity may be decomposed. Bromide of ethyl is likewise decomposed by heating with a mixture of nitric and sulphuric acids, and if to the mixture a sufficient quantity of silver nitrate be previously added the entire bromine of the compound can be obtained as silver bromate, and from this as silver bromide.

Pure bromide of ethyl should not become turbid when agitated with about ten per cent of its volume of water, nor should the supernatant watery liquid be of acid reaction. A very efficient method of preserving the bromide is to cover it with a layer of water, even if only one-eight or one-fourth of an inch deep; by this means the decomposing influence of the atmosphere is rendered inoperative.

I shall at an early day communicate further notes on the by-products which are formed during the preparation of bromide of ethyl, with particular attention to the influence exerted by the employment of different temperatures in the process.

I append below results of a quantitative analysis of a sample of ethyl bromide prepared by myself, which gives all reactions of a pure article, boiling at 36½° C. and having a specific gravity of 1.436.

TABLE SHOWING REACTIONS OF COMMERCIAL SAMPLES OF BROMIDE OF ETHYL.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	Pure Chloroform.
1. Color and reaction.	yellowish, slightly acid.	colorless, neutral.	colorless, neutral.	colorless, neutral.	colorless, neutral.	slightly colored, acid reaction.	yellowish color, acid reaction.	colorless, slightly acid.	colorless, neutral.	
2. Odor after evaporation from blotting paper.	acid, smells plainly of acetic ether.	odor reminds of allyl sulphide.	no foreign odor.	no foreign odor.	slight odor of garlic	smells sour.	odor reminds of sulphur compounds.	no foreign odor.	no foreign odor.	
3. Specific gravity at 15° C.	1.4216.	1.408.	1.437.	1.450.	1.4144.	1.408.	1.2314 at 20° C.	1.432.	1.436.	
4. Constant boiling point.	37° C.	35° C.	36° C.	36° C.	35° C.	35° C.		36° C.	36½° C.	
5. After ten minutes contact with sodium.	slightly attacked.	strongly attacked.	slightly attacked.	slightly attacked.	slightly attacked.	sodium entirely dissolved.	sodium dissolves with strong effervescence.	affected very slightly.	not attacked.	slightly attacked.
6. Reaction and odor after removal from the sodium.	slightly alkaline, irritating to the eyes	alkaline, slight foreign odor, irritating.	neutral, faint evanescent smell of herrings.	slightly alkaline, strong persistent smell of herring.	slightly alkaline, odor of herrings	alkaline, vapor irritating.	strongly alkaline, garlicky odor.	neutral, very faint foreign odor.	no foreign odor.	no foreign odor.
7. Reaction with sodium amalgam and water.	yellow.	yellow.	yellow.	yellow.	yellow.	yellow.	strongly affected before addition of water.	yellow.	yellowish.	
8. Reaction of liquid from No. 7 with sodium nitroprusside.	slight red coloration.	brownish yellow.	yellow.	no reaction.	no reaction.	no reaction.	blood red coloration.	no reaction.	no reaction.	
9. Reaction with conc. sulphuric acid.	brown color, vapor irritating to the eyes.	effervesces, lower layer brown, smells of H. Br.	brown at plane of contact.	no effervescence, ether colors brown.	no effervescence, lower layer brown.	both layers brown, vapors strongly irritating.	colors brown with elevation of temperature.	slightly brown at plane of contact.	remains clear.	remain clear.
10. With Fehling's solution.	milky.	clear.	upper layer turbid, odor of coal gas.	slight odor of herrings,	no reaction, slight odor.	no reaction.	slightly decolorized.	no reaction.	clear, no reaction.	reduces the copper.
11. With alcoholic potassa, fifteen minutes contact.	clear.	clear	clear.	clear.	clear.	clear.	immediate precipitate.	clear.	clear.	immediate precipitate.
12. Aqueous solution of potassa.	milky.	clear.	clear.	turbid.	clear.	turbid.		clear.	clear.	becomes turbid.
13. Solution of potassa with potassic permanganate.	color weakens in two minutes, colorless in five min., brown at end of 24 hours.	color destroyed in 10 minutes.	decolorized in 20 minutes.	loses color in 10 minutes, destroyed in 24 hours.	no immediate reaction, color destroyed in 24 hours.	color destroyed in 15 minutes.	color destroyed immediately.	no immediate reaction, color destroyed in 24 hours.	color destroyed in 36 hours.	green at once.
14. Solution potassic bichromate and sulphuric acid.	greenish coloration.	lower layer brown, upper layer violet.	yellow.	upper layer brown, lower layer brownish yellow.	slight greenish coloration of ether layer.	upper layer violet, lower layer dark brown.	green at first, brown in 5 minutes.	no change of color, ether clear.	no change of color noticeable at end of 4 days.	green at once, later brownish yellow.
15. Acetate of lead solution.	becomes turbid.	slight turbidity, soluble in acetic acid.	clear.	turbid, clears with acetic acid.	clear.	turbid, sol. in acetic acid.	strongly turbid.	hardly noticeable turbidity.	clear.	strong turbidity
16. Nitrate of silver solution.	supernatant liquid becomes milky.	upper layer turbid.	turbid.	milky.	milky.	milky.	precipitates immediately.	slight turbidity.	clear.	clear.
17. Ammoniacal nitrate of silver.	becomes turbid.	turbid, slight reduction of silver.	upper layer milky.	both layers milky.	milky.	turbid.	precipitates at once.	slightly turbid.	clear.	both layers turbid.
18. Liquid from No. 5 after acidulating with sulphuric acid.	slight sulphurous odor.	smell not noticeable.	slight sulphurous odor.	slight foreign odor.	hardly perceptible odor,	hardly noticeable odor.	strong garlicky odor.	no change.	no change.	

Analysis of 0.307 grammes bromide of ethyl:

C. 67.601.
H. 14.081.
Br. 225.322.

307.004.

Estimated from formula C_2H_5Br.

C. 67.596.
H. 14.082.
Br. 225.322.

307.000.

Note explanatory to some of the reactions mentioned in this table:

To No. 6. In this set of reactions the quantities of sodium and ether used were as nearly as possible alike.

To No. 6. The liquid after treatment with sodium is dropped on blotting paper and allowed to evaporate; foreign substances betray their presence by the odor. The irritating property of the vapor, when referred to, is meant to apply mainly to its action on the eyes.

To No. 7. The sample is first left in contact with the sodium amalgam alone; after color reactions are obtained the water is added. This sample, I may remark, was furnished Dr. William Brodie, of the THERAPEUTIC GAZETTE, by Dr. J. Marion Sims. It is a portion of that employed by this distinguished surgeon in the fatal case with the details of which the profession is so familiar.

To No. 14. The ether being heaviest, constitutes in this case the lower layer.

To Sample No. 7. In this case the specific gravity was taken at 20° C. All the rest were taken at 15°C.

POSTSCRIPT.—After the above article had already passed into the hands of the printer, I received an additional consignment of various commercial brands of bromide of ethyl. As the time for making further tests was too limited to take in hand more than a single sample, I selected for the purpose one purporting to have been used by Dr. Levis, of Philadelphia, in the fatal case which he has lately reported as having occurred in his practice from the effects of this anæsthetic, which sample consisted of about two fluid ounces, and was contained in a bottle with the name "Jefferson Medical College Hospital" blown in the glass. The reactions obtained with this sample were as follows: Colorless; reaction neutral. On cooling the ether to 20° C., it became opalescent, and on being allowed to remain at rest for a while after the treatment, a separation of a liquid substance takes place, which refuses to be again incorporated with the main body of the ether by agitation.

Water agitated with the sample acquires a decidedly acid reaction. The specific gravity is 1.2123 at 15° C. This sample begins to boil at 33° C., but the boiling point does not remain constant until 35° C. is reached. Sodium was strongly attacked, with the formation of a very considerable quantity of bromide of sodium. The liquid decanted from the sodium and evaporated from blotting paper, left an odor similar to that of acetic ether. Another portion of this liquid, when supersaturated with concentrated sulphuric acid, evolved vapors of hydrobromic acid.

Sodium amalgam was strongly attacked with the formation of a white flocculent precipitate. The liquid decanted from the sodium amalgam gave no reaction with sodium nitroprusside. When the ether is treated alone with concentrated sulphuric acid, it becomes turbid, and also colors brown at the plane of contact.

Half a fluid drachm treated with five drops of Fehling's solution, changes the color of the latter to a light green, which cannot again be restored to a blue by the addition of caustic soda.

When treated with an equal volume of alcoholic potassa, the ether remains clear for about fifteen minutes, and then becomes turbid. Agitated with aqueous solution of potassa, the latter acquires a turbidity; the addition of potassium permanganate is followed by an immediate green coloration of the liquid, and after about half an hour, by the formation of a brown precipitate.

No reaction is obtained by treatment with sulphuric acid and potassium bichromate. With acetate of lead solution, aqueous as well as alcoholic, it gives a turbidity. With silver nitrate, the supernatant liquid is at once colored yellow, and at surface of contact a reduction of the silver can be observed. The same results are obtained with ammoniacal nitrate of silver, with additional formation of a turbidity, which is not soluble in nitric acid.

The reactions of this sample, as well as those ob tained with Nos. 1, 4, 6 and 7, demonstrate conclusively their entire unfitness for the purposes of inhalation.

[Written for the Therapeutic Gazette.]

The Cocklebur (Xanthium Strumarium.)

By Charles L. Gwyh, M. D., Retreat, Texas.

THE cocklebur has long been held, in this section, in high repute as a domestic remedy in cases of snake-bite and also as a styptic.

It grows abundantly here and throughout the whole cotton growing region, in waste places and wornout fields; it often also proves troublesome to the farmer by crowding out his young crops. Stillé and Maisch, in the last edition of the National Dispensatory, mention it under the botanical name of xanthium strumarium, but make no mention of its hæmostatic qualities, and it is to this I wish to direct attention, thinking that in it we have both a reliable and cheap styptic.

The common mode of application is the expressed juice of the fresh leaf applied to the bleeding surface, which, almost instantaneously, produces contraction of the wounded capillaries and coagulation of the effused blood, nor does it seem to act detrimental to the subsequent healing process as do the salts of iron, sometimes. Dr. Irion, of Montgomery, of this State, in a conversation upon the subject, mentioned the fact that it is often used in his neighborhood as an antidote to bite of venomous snakes and poisonous insects, in form of a decoction of the leaves internally, taken in large quantities and a poultice of the boiled leaves to the seat of the bite. I suppose from Dr. Irion's statement that the drug possesses no toxic properties, and had we a suitable pharmaceutical preparation, I should use it internally in passive hæmorrhages of the bowels and in metrorrhagia by injections.

The first instance in which I witnessed its use was upon a horse belonging to a neighbor, which had staked himself in jumping a fence, a piece of timber entering between the ribs and shoulder, in the space corresponding to the axilla in the genus homo, to the depth of four or five inches and large enough to

receive my fist. The horse was very weak from the loss of blood and still bleeding; we bruised a handful of the green leaves and immediately packed it in the wound with the effect of staunching the flow of blood. The horse recovered. I afterwards used the herb successfully in the following cases:

Case 1. Epistaxis from purpura hæmorrhagica. August 12, 1879. I was called this day by Dr. G. D. Hall, of Courtney, to see his patient, Charles W., in the town of Courtney, who was bleeding profusely from the nose and buccal mucous membrane, and had been so for twenty-four hours previous. Applications of cold, hypodermic injections of ergotine, elixir vitriol, Monsel's solution of iron, and plugging the posterior nares, were used, each in turn, with but temporary relief. The case becoming critical, we asked for further assistance, and Dr. Baylor, of Navasota, was sent for. Dr. Baylor related a case of epistaxis which occurred in his own family, in which cold and styptics proved useless, and the expressed juice of the cocklebur was successful, and at his suggestion we tried it on this case. The relief was very prompt, we having only to make two applications to entirely check the hæmorrhage, which did not return.

Case 2. Post-partum hæmorrhage. Mrs. Fannie G., æt. 22 years, third confinement. In each previous labor she had suffered from excessive hæmorrhage. The hæmorrhage in this instance commenced about twenty minutes after labor and in less than five minutes after delivery of the placenta, which came away spontaneously. All the usual means to check it were unavailing. Applications of cold, ergot by mouth and hypodermically, nitrite of amyl, heat over the medulla oblongata, etc., were all tried in vain, and as a last resort I tried the juice of the cocklebur leaves.

Upon a re-examination of the parts I found a large interstitial fibroid tumor in the posterior wall of the uterus which prevented proper contraction of that organ. I applied the cocklebur juice by means of pledgets of lint, swabbing out the cavity, and after the first application had but little trouble. Two other applications were made, only within the vagina, and the flow entirely checked. Both mother and child did well.

I have frequently used the cocklebur in incised and lacerated wounds successfully, in cases of which I have kept no record.

[Written for the Therapeutic Gazette.]

Pulmonary Congestion—Hay Fever.

By S. A. Butterfield, M. D. Indianapolis, Indiana.

IN the April, (1880) number of the GAZETTE, I see an article from Dr. B. H. Riggs, giving his experience with and recommendation of carbonate of ammonia in suffocative disorders, in which he says he relieved a very bad case of pulmonary congestion in twenty-four to thirty-six hours. It seems from his statement that the object of the remedy is to support the patient while nature gives the relief, as he says it rarely lasts over the time mentioned. Now I should like to know where was the doctor's ipecac, sulphate of zinc, mustard, etc., that a case of lung or bronchial congestion should last over *one* hour, for surely a prompt emetic would relieve the engorgement in that time. The stimulant in addition to, or even after, the emetic might be very well if the patient were weak and easily exhausted, but even then I should prefer the aromatic spirit to the carbonate, and while giving the emetic, if I wanted to stimulate, I would prefer alcohol in some form, and ammonia after emesis. Now my own experience with my patients and in my own person, in a practice of over thirty years, has proved to me beyond cavil that a thorough vomiting is *the* safe, certain and speedy relief for pectoral congestion and engorgement, as the mechanical action is what we want for relief. If my patient was not under three or four years old I would give full doses of sulphate of zinc every fifteen minutes till free emesis ensued, and if the case was very urgent or anything prevented the free swallowing of the medicine, a hypodermic injection of apomorphia should be administered at once, and my word for it, no four hours, much less twenty four hours, will be necessary for successfully and completely relieving the patient.

I see also in a late number of the THERAPEUTIC GAZETTE an article on the treatment of that tormenting disease called (for want of a better name, perhaps,) hay fever. There is an old saw which says "there is something to be learned from every fool," so I will just say for the benefit of my professional brethren in particular and the sneezing community in general, that I have proven to my satisfaction that the disease is simply an irritation of the olfactory nerve the same as in an ordinary coryza; hence when called to treat a sneezing patient either from one or the other of these troubles, with a little cotton wrapped on the end of a small stick I apply to the Schneiderian membrane of each nostril about about a third to a half grain of morphia in powder, and give about two scruples of quinine in twenty-four hours. The morphia will stop the titillation and sneezing in ten to twenty minutes, and a few more applications as the tickling begins to reappear, will complete the cure in a very short time. If the patient is much chilly I put him to bed with three or four hot, wet, steaming bricks and give jaborandi till he sweats freely. This course will never fail to cure.

[Written for The Therapeutic Gazette.]

Jamaica Dogwood—Piscidia Erythrina.

By J. M. Blackerby, M. D., Milford, Ky.

FEB. 25th I was called to see Mrs. D., æt. 36, suffering from a long and severe attack of sciatica. She had tried many remedies to alleviate her sufferings but had found no relief from anything taken, except while under the influence of morphia, which drug invariably left her with sick stomach and great nausea and retching. I at once determined to test the virtues of piscidia erythrina in her case, to relieve the pain and procure rest. Therefore prescribed:

℞ Piscidia erythrina, ʒ ss.
Aquæ, ʒ iij.

Mix and take at one draught on retiring for the night, at which hour I saw her. The same quantity to be repeated in one hour. 8 o'clock next morning I called and found the lady resting quietly and free from pain; said she had passed the first comfortable night she had passed for several weeks; no pain, no sickness of the stomach, and a fair appetite for her breakfast. I now prescribed and applied adhesive blisters three-fourths of an inch in diameter and

every two inches along the sciatic nerve, commencing at the hip joint and tracing the nerve, to the number of sixteen. These, after opening the blisters the next day, I left to fall off in the course of eight to twelve days. Directed the continuance of the piscidia as the pain required relief, and left my patient. Before the blisters fell off my patient was walking around, and in a week more was doing her house work. I do not wish to be understood as saying that the piscidia in this case was the agent that cured the sciatica, only that she obtained such relief from her suffering as all other agents failed to give. I have treated many cases of sciatica in the same manner, that is, with the blisters, but always used some preparation of opium to relieve the pain, but I do claim that I have never, in many years of practice, met so complete success, and consequent satisfaction, as I obtained in this case, both as to the relief of pain and the absence of any of the unpleasant sequelæ following the use of opium or its salts. I have watched this patient almost daily since her recovery, as she lives next door to me, and I am unable to see any unfavorable constitutional effects from the use of the drug. What makes the case more interesting is the fact that the lady is the wife of our druggist, and was hitherto the patient of an old physician of long standing in this place. The remedy was entirely new to the druggist, and he expressed great wonder and delight at its prompt and satisfactory action in the case, and immediately ordered a pound of the drug.

I am highly pleased with its effects in this case, and also in several cases of other diseases, especially where there is pain and great restlessness. Making all due allowance for the extravagant praise and enthusiasm of many of my patients I am gratified to find a remedy that I can sometimes, at least, use without detriment to my patients, and with credit to myself. I think Jamaica dogwood, indeed, a desideratum in the practice of medicine, and am not satisfied to be without it in any case. Not expecting it to suit all cases, as no remedy will, I intend, as opportunity offers, to still further test its virtues, and report results.

[Written for the Therapeutic Gazette.]

Betonica Officinalis (Wood Betony vs. Betony wood.)

By F. Herring, M. D., Goshen, Ind.

WE, as physicians, often wonder why a remedy which produces such favorable results in one case, so completely disappoints us in the next similar case for which we prescribe it. Granting that in many cases the prescriber is at fault, perhaps in his diagnosis or otherwise, there are still many cases, we are certain of, in which the remedy itself is at fault, it perhaps being of a different manufacture, and from a much inferior article than that from which our former supply was taken, and we are often at a loss to know why there should be such a discrepency in the preparation of some of our most valuable new remedies.

To illustrate, I would cite the case of betonica officinalis, (wood betony vs. betony wood). The tonica officinalis, is not a native of this country, and does not grow wild in any portion of it, to my knowledge, and I have made diligent search for several years past. There are several species of it natives of this country, of which I have made mention in former articles, but they possess but few of the medicinal properties of the genuine European plant. When cultivated here it is of a rather slow growth, and requires much care to produce even a limited crop. Betony wood, on the contrary, one of our native species, and which resembles it to some extent in appearance, but possessing very few medicinal properties, and differing entirely from it therapeutically, grows wild and very abundantly in most of our western states, and can readily be obtained in large quantities. I am informed, by reliable authority, that some of our large herb dealers, are selling this article to manufacturers (at a few cents per pound) representing it to be the same as the European wood betony, and that it is being manufactured and sold as such. This, of course, enables the rival manufacturer to sell his article at a much lower price than those who are using the genuine article, and thus physicians, not knowing the deception practiced, are often led to discard the remedy entirely, by having palmed off on them the spurious article.

I have merely referred to the above discrepency in the preparations in the market, as an instance of it has lately come to my own knowledge from a party who has been deceived in this manner. Similar deception is practiced in the manufacture of other valuable new agents.

It is, therefore, very essential that physicians and druggists should use the greatest care in selecting their remedies, and in the case of vegetable drugs particularly, only from such sources as are known to them to be perfectly reliable.

[Written for The Therapeutic Gazette.]

Medical Jottings.

From our London Correspondent.

JUST now we are in the height of the London season, and dinners, balls, parties, and entertainments of all kinds are the order of the day. A few nights ago Mr. Wood, the well known surgeon, gave a conversazione at the South Kensington Museum to the members of the Metropolitan Branch of the British Medical Association, at which most of the London medical men were present. Last night the Pharmaceutical Society held a similar gathering at the same place, there being, it is said, nearly 3,000 people present. The magnificent rooms, when lit up and crowded with people, present an animated scene. On both occasions a selection of music was performed by the band of the Grenadier Guards, and glees and madrigals were sung at intervals.

In the country they are complaining bitterly of the absence of rain, and we are told that we are to have no fruit this year. The days are warm, but the nights are bitterly cold, and this, combined with the drought, has an injurious effect on all vegetation. Our London trees, it must be confessed, present a most miserable appearance.

An exhibition of chemical and pharmaceutical apparatus, drugs, etc., has just been held at the Phar-

maceutical Society, and has attracted much interest. Messrs. Parke, Davis & Co. exhibited some beautiful specimens of resinoids, notably apocynum, hamamelin, stillingia and xanthoxyllin. Their fluid extracts of berberis aquifolium, grindelia robusta, piper methysticum, etc., attracted universal attention. Of crude drugs, jaborandi leaves were in the ascendant. The collection of scientific apparatus was an unusually good one, spectroscopes, radiometers, microphones, telephones, Bunsen's pumps, electric bells in action, clinical thermometers, spirometers and students' microscopes being shown by the score. It was feared that the exhibition would not be a success, but the rooms were crowded the three days they were open, and there is some talk of its being made an annual affair. One of the most popular departments was that devoted to ærated mineral waters, and an unlimited capacity was exhibited by visitors for phosphade, sparkling Rozelle and ginger ale, and other non-intoxicating beverages.

"Cheken in Winter Cough," is the title of an interesting article by Dr. Murrell, of London, which appears in the May number of the Practitioner. Cheken is a plant belonging to the natural order myrtaceæ which grows abundantly in Chili. By some it is said to belong to the genus Eugenia, whilst by others it is said to be a true myrtle. That, however, is a point of very little importance, the chief interest in it being that it promises to turn out a good remedy for that most intractable of all diseases, winter cough. Dr. Murrell used cheken in fifteen cases of chronic bronchitis, and one and all derived benefit from the treatment. They were all bad cases, and in most instances the relief afforded was very marked. An addition to our stock of remedies for this common complaint must prove a boon. It is also said to do good in some cases of phthisis—as a palliative, it is to be presumed. The dose of fluid extract of cheken is two drachms in a little water every four hours. It is not poisonous, for Dr. Murrell gave an ounce and a half in water three times a day without the production of any unpleasant symptoms.

The Chian turpentine treatment of cancer is exciting much discussion. The difficulty seems to be not so much in curing the patients as in getting the drug pure. At the Middlesex Hospital, where there is a special cancer ward, it is said that they have been using what, on investigation, turned out to be a spurious article. A friend of mine who paid a long price for some Chian turpentine, "warranted genuine," found out that it consisted almost entirely of Canada balsam. The only thing is to get it from a really trustworthy firm.

It is said that Guy's Hospital is in pecuniary difficulties, and that had it not been for the liberality of the medical and surgical staff, who provided the sum of £2,500, two at least of the wards must have been closed. The condition of the nursery department has of late attracted much unfavorable comment, and this may, perhaps, account for the falling off of funds. Until recently this ancient institution had an income of nearly £40,000 a year.

The following is recommended in a Paris paper as a new way of killing slugs: "Do not waste your orange peel, but make an incision round it midway, and remove carefully in two halves; take the two cups and place them hollow downwards, one on the grass and the other among the plants or vegetables. At the end of a few days you will be rid of all slugs, black or gray. Every morning you will find that they have taken refuge under the two cups of orange peel, and can be easily destroyed." It is ingenious, if true.

Our list of pupil dilators seems to be steadily on the increase. Already we have atropine and belladonna, daturin, duboisia, ethyl, atropium, gelsemin, hyoscyamin, muscarin and paturia, and now we have homatropin, which promises to be of very great value and utility in ophthalmic practice. It is a bland but efficient mydriatic, rapid in its action and of comparatively short duration. It has besides many of the better characteristics of atropia. The solution to employ is a hydrobromate of homatropin, four grains to the ounce. It may be as well to explain what homatropin is. Some time ago Kraut and Lossen discovered, almost simultaneously, that atropin may be split up into tropin and tropic acid, and last year Ladenburg succeeded in re-forming atropin from these two constituents. By treating the different salts of tropin with dilute hydrochloric acid, a class of alkaloids may be artificially produced, to which Ladenburg has given the generic name of tropeins, and homatropin is one of these alkaloids obtained from the amygdalate of tropin—that is, tropin combined with amygdalic acid.

[Written for The Therapeutic Gazette.]

Gelseminum in Acute Mania.

By I. H. Stearns, M. D., Milwaukee, Wis.

HAVING been situated where I have had a dozen cases or so of acute mania every year for several years, and having found by ample experience that gelseminum, with its peculiar property of relaxing muscular tissue, is exactly indicated where the whole system, in every fibre, is wrought up to the highest state of tension, I would direct the attention of the profession to this application of this remarkable remedy.

A patient laboring under the greatest exc itemen with hallucinations of a violent character can be subdued to calmness and sleep by a few doses of this drug, following each other once in thirty minutes until the drooping of the eyelids reveal its specific effect.

Mania is a disease of the physical system and not psychological, except in its effects. In such cases the physical system is out of order, as can be seen by a careful examination, and the great necessity is for rest, for sleep.

In the first place tone down the excitement by ten drop doses of the concentrated tincture or extract, then get your patient to sleep, by chloroform is the better way, then leave him noiselessly and he may sleep for hours, and not unfrequently the process does not have to be repeated, certainly not after the second or third time.

In medicine there is no certain and positive specific, but in cases of acute mania, gelseminum comes very near to it.

The Philosophy of Malarial Fever.

By I. H. Stearns, M. D., Milwaukee, Wis.

HAVING been mentioned in the April number, in connection with the above subject, please allow me space for a few words.

In regard to the physiology of the blood in its relation to the liver, taking the view presented in yellow fever as the correct one—that the effete, worn out and dead corpuscles of blood are eliminated by that immense gland, it is clear that in malarial fever, there is not such a remarkable mortality among the blood disks, or in yellow fever.

Instead of this, there is something extraneous, a foreign substance in the blood to be eliminated by the skin through the sweating process, or neutralized by medication.

It is quite certain that in the treatment of chills and fever, when we use quinine for instance, it unites with the malaria and forms an inert substance, which may be called the "quinate of malaria," to give it a chemical name.

Such cases should be treated strictly according to the chrono thermal conditions, and the remedies should be given several hours before the expected chill, as it is only thus that it can be prevented. After the escape of the malaria has begun by nature's process, anti-periodics are worse than useless, and diaphoretics are then indicated.

Many cases of malaria are not amenable to any cinchona preparation but will yield to grindelia squarrosa or some other remedy.

Abstracts and Translations.

Rectal Feeding in Disease.

Dr. William Warren Potter, of Batavia, N. Y., in the N. Y. Med. Record, for April 10, discusses at some length the value of this method, and reviews the theories upon which its beneficial results have been supposed to depend. He narrates four cases in which the beneficial results of rectal alimentation have been tried with unmistakably good results.

After reviewing the different theories which have been advanced to account for the nutritive effects of this method of administration, he gives his preference to that enunciated by Dr. Campbell, to which we referred in the last number of the THERAPEUTIC GAZETTE, and to which Dr. Campbell has applied the name of "intestinal inhaustion," that is, being a reversed peristaltic action of the intestines, by means of which the contents of the lower portion of the alimentary canal are propelled upwards into the small intestines, which furnish the essentials of digestion. To show that this retrostaltic action is neither unreasonable nor impossible, gagging, vomiting, regurgitation and the rumination of animals are instanced as some reversals of the physiological action of the parts involved.

As a result of his reasoning Dr. Potter arrives at the following conclusions:

1.—That rectal alimentation is a valuable agent, nay, even an indispensable factor, oftentimes, in the management of all cases of disability of the upper portions of the digestive tract when, from any cause, stomachal ingestion becomes harmful or impossible.

2.—That stomachal rest, in so far as the entire prohibition of buccal ingestion can make it so, is a condition precedent to success in all the severer maladies for which rectal feeding becomes necessary. There cannot be the slightest doubt in regard to the adequacy of nutritive injections to sustain life and maintain the nourishment of the body wholly unassisted by the ordinary methods of ingestion, for a considerable period (from three months to five years), as attested by well authenticated cases of record.

3.—"That rectal nutrition requires rather an explanation of its *rationale* than a demonstration of its truth."*

4.—That in a more enlightened understanding of its value and certainty of action on the part of the profession, rectal alimentation and medication will obtain a wider range of therapeutical usefulness than it has heretofore occupied. Limited in the past, speaking generally, to the severer forms of chronic diseases of the stomach and œsophagus, I cannot doubt that they will, in the near future, become of vast service in the management of acute disease when, from any cause, the stomach becomes intractable and rebellious.

5.—That the rationale of rectal nutrition is not satisfactorily explained in the absorption of the aliments by the rectum and colon alone; nor by means of the artificial digestion of the food previous to its injection, after the manner of Leube; nor by the vicarious secretion of the digestion juices, according to Flint; nor by the attraction downward of the digestive fluids of the stomach and small intestine, until the alimentary mass is met and rectal digestion is accomplished, also an ingenious proposition of Flint. But I am persuaded that the adequacy of rectal feeding, in supplying nutrition and support to the body, can be fully accounted for in the recognition of the retrostaltic action of the intestinal tube—the "intestinal inhaustion" of Campbell—whereby the pabulum ascends to the small intestine, meeting there those digestive principles so necessary for its assimilation and chylification, preparatory to its admixture with the blood. Here, also, are found in abundance the lacteal vessels for the absorption of the chylous emulsion, ready to perform their part in the vital constructive process, whereby blood is made for the repair of the wasted and worn out tissues, and for the building of such new ones as are demanded by the economy. Furthermore, that in this manner digestion is as certainly accomplished as though the food came by way of the mouth instead of the rectum.

6.—That a timely and systematic employment of rectal alimentation and stomachal rest, in cases where the stomach is so disabled as to render the ordinary methods of ingestion harmful or impossible, is demanded alike by reasons scientific and humanitarian; and no person, except the most ignorant or malicious, could for a moment call it starvation. But, on the other hand, rectal alimentation, medication and stimulation can be carried up to the point of affording the greatest amount of nutrition and support, and that wholly unassisted by any other means of ingestion.

7.—That, in many forms of disease, stomachal ingestion is positively harmful, even though all food may not be immediately rejected. Such as is retained oftentimes undergoes decomposition, producing thereby fermentation, irritation and distress, rendering it unfit for the purposes of nutrition; and, finally, the stomach expels the offending contents undigested. In such cases digestion is so disturbed as to render stomachal alimentation positively harmful—nay,

* Campbell, loc. cit.

even impossible; and its entire prohibition becomes at once a therapeutical factor of the greatest import.

8.—And, finally, that food sent upward through a healthy avenue, in good and sufficient quantities, will contribute with vastly greater certainty to the nutrition and support of the body than when it reaches the absorbents through a diseased and disordered digestive tract, with its juices chemically at fault, and all its functions rendered morbid by pre-existing reflex or organic maladies.

The Opium Habit—A Possible Antidote.

Dr. E. R. Palmer, Professor of Physiology in the University of Louisville, contributes an article to the Louisville Medical News on this subject, from which we make the following selection:

It is not my purpose to enter into a lengthy dissertation upon this "social evil;" yet such a dissertation would be by no means inappropriate, seeing how great is the evil of the opium-habit, and how poor and insufficient the literature bearing on its treatment and cure. No people so well know the uniform evil effects of opium-eating as the medical fraternity. De Quincy and others have founded the pernicious notion among the laity that there is a something far more exhilarating, far more divine in the intoxication produced by opium than in the commoner intoxication of alcohol.

Few people, comparatively speaking, need look beyond personal experience to know that the poet has not been niggard of his coloring when singing the praises of the rosy juice. The majority of mankind has too vividly imprinted in memory the clouded intellect, headache, and nausea following bibulation to bow unqualified assent to the poet's ecstatic verses recounting the virtues of "the generous wine." On the contrary, happily, so far as we Americans are concerned, what the vast majority of us know of the opium-habit is gained from hearsay, and is, as is well known to the doctor, unreal in the extreme. It has been my lot, like that of most practitioners, to come in contact with opium-eaters, and I will positively affirm that I have yet to see one who even approximated in his nature the "happy-go-lucky" character of the drunkard. Opium-eating is a curse without any qualifying dispensation—a black cloud in a sunless life. Unlike alcohol, it cannot be said of opium that its constant use improves the vital powers of the enfeebled. No debates as to its food-properties ever have or ever can be held. It is simply a powerful drug, useful in time of great physical distress, and pernicious beyond the power of pen to portray when once it fastens itself upon the mortal frame as a daily necessity.

To be able to cure the opium-habit has been the laudable ambition of many a worthy doctor and the vaunted claim of many a blatant quack. I believe that so far as the literature of medicine goes to-day we have no remedy with any claims whatsoever as a curative of this habit. Those doctors who have succeeded in reforming any of its victims have, I believe I am safe in saying, done so by aiding the weak resolves of their patients with their own strong will and influence. If any medical man has yet discovered a *cure* for opium-eating, I am sure the medical world is not aware of it.

Recent experience has led me, in view of the facts just stated, to hope that I have discovered a cure. What it is and how I came to use it may be briefly told as follows: In looking over the different remedies which various drug houses have kindly donated to the University Dispensary, I read upon the back of a bottle of fluid ext. of coca, made by Parke, Davis & Co., that this drug "produces a gently excitant effect; is asserted to support the strength for a considerable time without food; in large doses produces a general excitation of the circulatory and nervous systems, imparting increased vigor to the muscles as well as to the intellect, with an indescribable feeling of satisfaction amounting altogether sometimes to a species of delirium, not followed by feelings of languor or depression," etc., etc. At this time I was treating in private practice an obstinate case of cardiac irregularity due to a somewhat dissolute life, and not amenable to either belladonna, digitalis, or tonics. I started the patient on coca. From dropping one beat in every four, his heart went, with increasing dose of the drug, to one in seven, one in twenty-one, in thirty-eight, and finally a cure. The absolute relief and cheer that a good, big dose of coca imparted to this patient were wonderful to observe. I had hardly begun with this case before a similar but even worse case of cardiac exhaustion, with irregular action, offered at the university chest clinic for treatment. To be brief, he got coca and got well. In both cases hypochondriasis was a marked symptom, and was speedily cured.

In March last I was sent for in great haste by the proprietor of a neighboring saloon, and on my arrival was told that "a chap" had just gone to his room from the saloon in a fearful fix. "He looks," said the publican, "as if he had been on a terrible spree, and needs a doctor mighty bad." I was shown to the gentleman's room, and was struck at once by his peculiar appearance. He told me frankly that he was an opium-eater; that he had not taken a drink for months; but that this morning, feeling so badly from morphine, he had gone to the saloon and taken a brandy cocktail, which, however, did not stick. He protested that he was dying, and altogether was in a sorry plight. I subsequently learned his dose was three grains of morphine several times a day. I tried various remedies for a day or two, and by moral suasion got him to reduce the dose very materially, but much to his discomfort. About the third day of my attention I bethought myself of the coca and ordered it for him. Imagine my surprise upon meeting him the next day with fine spirits and a record of only one-fourth of a grain of morphine taken since my last call. This was the end of the case. He took the coca for some days, and entirely broke off from opium. His statement was that whenever he felt depressed or bad he took a good big dose of the medicine, and in a few moments was all right.

My second case was so striking in its results and is so recent that I hardly feel justified in reporting it. It is as follows: Upon the 18th of the present month (May) a gentleman sent for me. I found him in bed, looking like a consumptive. He at once told me that he was an opium eater, and that he had reached a point where thirty grains

of morphine daily were necessary to supply the cravings of his perverted nature. He said that he was now trying to break off, and wanted me to help him. I told him of what the coca had done, and with a few cheerful words prescribed it for him. The next day I found him still taking morphine, although in small doses, as he had not been able to find the coca. Upon the following day he had had but one dose of morphine in eighteen hours (one fourth grain) and plenty of coca. He was hopeful and cheerful. The next day I failed to see him, and on calling the day following the servant met me at the door with the statement that he was well, and had gone down street. This much I can say for the last case, that when I last saw him he looked like another man, so light and cheerful was his face and so free from the evidences of opium.

These are very brief and slender claims upon which to base a claim of discovery; and while I might supplement them by several cases of ordinary hypochondriasis relieved by the agent in question, I do not deem it worth while, as my only desire is to direct professional attention to the administration of coca in the treatment of the opium habit.

Erythroxylon coca is a native of the eastern slope of the Andes. It is cultivated in the tropical valleys of Bolivia and Peru. The greatest of care is given to its culture by the natives. An idea of its importance as an agricultural product may be gained from the fact that the duties upon coca in Peru amount yearly to four hundred thousand dollars. The Peruvians are pre-eminently a despondent, an unhappy race, and coca is their balm. To them it is a relic of departed days of glory, and under its benign influence they enjoy in dream and delirium the halcyon days of Monco Capac.

Professor Steele, of the American Pharmaceutical Association, from whose article upon coca I glean these facts, says: "Coca is both salutary and nutritious; in fact, the best gift the creator could have bestowed upon the unfortunate Indians. They always carry a bag of leaves suspended from their necks, upon which they draw three times a day with as much pleasure and delight as a connoisseur in tobacco smokes a fragrant Havana. It imparts brilliancy to the eye and a more animated expression to the features, agility to the step, and a general appearance of animation and content." Indeed, one can scarcely read Prof. Steele's article* without wishing to test the virtues of this great antidote for the blues. The ordinary dose for adults of the fluid extract is a tablespoonful.

Chrysophanic Acid in Psoriasis.

The following abstract from the Proceedings of the Medico-Chirurgical Society, of St. Louis, and embodying the discussion on chrysophanic acid, is taken from the Cincinnati Medical News:

Dr. Hardaway.—I wish to exhibit to you this young gentleman whom I have been treating for a diffuse psoriasis. The remedy employed by me was chrysophanic acid, and the result, so far as dissipation of the eruption is concerned, has been truly remarkable. You will observe on this patient numerous dead white patches, surrounded by areas of dark, brown-looking skin; but on close inspection, you will note that these spots are destitute of scales, and entirely supple and smooth to the touch. This abnormal coloration will shortly disappear, leaving the integument normal in appearance. The rapidity of effect obtained by the chrysophanic acid treatment, as compared with former methods, is interesting; a week, under this remedy, will accomplish more, as a rule, than a month's persevering use of other drugs, whether locally or constitutionally administered, or both combined. I should like to say in regard to this drug, that it is a powerful stimulant to the skin, and, therefore, must be used cautiously, and not over too large a surface at one time, as you may get up intense erysipelatous inflammation of the surrounding healthy skin by its injudicious application. I believe that in the majority of cases an ointment of from fifteen to thirty grains to the ounce is sufficiently strong. In passing, it may be said that chrysophanic acid is an effectual local application in all parasitic affections, and has proved very serviceable in lupus. Great care should be taken, if indeed it is at all safe, in applying the acid in the neighborhood of the genitals and about the face, as it is apt to cause marked œdema in these parts.

The chief objection to the drug is its bad quality of staining the skin, dying the hair, and utterly ruining underclothing and bed linen, but these various inconveniences may be avoided with a little care.

Dr. Prewitt.—That is a very interesting case, especially in view of the success of the treatment. Psoriasis is a symmetrical disease, and Paget has laid it down as a rule, that all symmetrical diseases are blood diseases, and why a local application should cure a disease of that kind, is surprising; but that it should be beneficial is not. I have always given these cases constitutional treatment as well, and I find that they yield quite readily, although not as promptly as this one has done. I do not suppose chrysophanic acid has any specific properties, merely improving the local nutrition of the part, as do the tarry and other stimulating applications formerly recommended. The history of psoriasis shows that it returns sooner or later in all cases, and if it can be proved that this new method of treatment permanently removes the disease, the acid should be considered a very marvellous agent. For my part, I scarcely believe that psoriasis is an affection that can be eradicated by merely local means.

Dr. Hardaway.—I make no such claim for chrysophanic acid. The disease will as surely relapse after its use as after the use of other drugs. I claim merely for chrysophanic acid that it will remove the local trouble more rapidly than any other remedies at our command. Again, psoriasis will relapse after the most rigorous constitutional treatment. If arsenic, or any other so-called constitutional specific for psoriasis, alone or combined with local treatment, would cure the disease more rapidly, or cause few relapses, than under a purely local treatment, I should say by all means use such measures; but such does not seem to be the case—the recurrences seem to be as frequent as when local remedies only are applied. Then why plague a patient with internal medication for the sake of a theory, whether true or false it matters little, if the results do not square with the hypothesis?

* Proceedings of the American Pharmaceutical Association, 1878, pp. 774-788.

Chaulmoogra Oil in the Treatment of Leprosy.

David Young, M. D., Florence, in an article in the Practitioner, gives a report of the results of the employment of chaulmoogra oil in leprosy :

Chaulmoogra oil is a fixed oil obtained from the seeds of the gynocardia odorata, one of the bixineæ, found in the forests of Eastern India. From time immemorial it has been held in great esteem by the native races of India as a potent remedy in the treatment of leprosy, and interesting notices of the oil in its relation to this disease are found in several of the Hindu works on materia medica. About eight years ago public attention was directed to the subject in Western India, in consequence of several cases of reported cure under the care of Dr. Bhau Daji, a graduate of the G. M. C. Bombay. The native press gave prominence to these reports, and the result was that a great many lepers came—some from very long distances—to Bombay for the purpose of consulting him. However, the fees he demanded were exorbitant, and the discovery being soon made that his treatment was mainly a revival of that practised by the Hakims centuries before, his fame was short-lived, though longer than it deserved. A number of the lepers who had been attracted to Bombay by Dr. Bhau Daji's fame applied at the Mission hospital for relief, and in the course of eighteen months between fifty and sixty cases were treated with chaulmoogra oil. During this period Dr. Young's attention was directed to a leguminous plant, the psoralea corylifolia, which abounds in the Konkan and Deccan, and was said to be much used by lepers as an external application, in combination with oil. While investigating this he discovered that the seeds of the plant were well known to Hindu ladies, and were much used as a remedy in loss of hair.

The reporter then gives notes of a number of cases treated. The forms of the disease noted were : Macular leprosy, four ; anæsthetic leprosy, twenty-three; tubercular leprosy, fifteen ; mixed cases, eleven. The patients were all adults, the proportion of males to females being about three to one.

The treatment consisted in the internal administration of doses varying from five to twenty drops three times a day, commencing usually on the smaller quantity and gradually increasing until the latter was reached. Externally, a liniment, composed of an ounce of chaulmoogra oil and a drachm of rectified spirit, was applied to the diseased surface. A seed known as psoralea, held in repute, was in some instances employed in conjunction with the oil.

The following are the observations on the cases treated :

1. In the macular and in the early stage of the anæsthetic forms of leprosy the chaulmoogra appears to be of decided value.

2. The oil should be given at the outset in small doses and gradually increased, as otherwise it is apt to cause nausea.

3. The good results were seen earlier in those cases in which the powdered seeds were given instead of the oil.

4. A liberal milk diet seemed to be a valuable auxiliary.

5. The psoralea given internally, in combination with the oil, appeared to be of no value, but when applied externally in the form of a liniment, was of undoubted service, especially in stimulating the hair bulbs.

6. Several of the cases treated were complicated with bronchial affections, which were quite relieved during the treatment. This, taken in connection with the fact that all the patients gained flesh, may point to the probable usefulness of the oil in affections of the chest.

7. The oil has a deserved reputation in cases of itch and parasitic pediculi, and forms a valuable addition to the ordinary sulphur ointment.

Mechanical Therapeutics, Chemistry and Toxicology of Mercury.

Dr. S. V. Clevenger, of Chicago, in the Chicago Med. Jour. and Examiner, further discusses the theory of the action of mercury, first enunciated by him in the Chicago Med. Gazette, a few months ago. This theory explains the action of mercury dynamically, that is, that there is no chemical change in the mineral after it is taken into the system, but that it passes to the different tissues of the system as mercury and there performs its therapeutic functions mechanically. In the case of the salts of mercury when taken into the system, Dr. Clevenger's theory is that they are reduced, that the acid of the combination is eliminated, and that the base, mercury, goes on to the performance of the same functions as in the case of the ingestion of the metallic mercury. The physiology of the method of action is illustrated by the minute division of the mineral which is possible by mechanical means, for instance. Nine preparations of mercury are given as follows :

1, Pilulæ hydrargyri ; 2, unguentum hydrargyri ; 3, hydrargyrum cum cretâ ; 4, emplastrum ammoniaci cum hydrargyro ; 5, emplastrum hydrargyri ; 6, unguentum hydrargyri compositum ; 7, linimentum hydrargyri ; 8, suppositoria hydrargyri ; 9, "oleate of mercury." The first eight are based directly upon globules of the metal ranging from 1-500 to 1-100,000 of an inch in size, mixed with substances more or less inert. No. 1 usually numbers 100,000 globules and upwards to each grain of mercury in the mass ; No. 2 is much more finely divided. No. 3 is badly divided, some of the globules being quite large, as the chalk does not prevent confluence, and hence it is an unreliable form for administration. No. 9 contains very minute globules, reduced by the oleic acid from the yellow oxide, with which it is incorporated. The metal constantly precipitates from this form until very few globules are suspended in the oil. The other mercurials vary more widely in the quantities of mercury they contain, but none of them convey mercury into the system in any other than the metallic condition.

No other metal is capable of comparison with mercury in its mechanical or physiological effect. It is the only metal fluid, at common temperatures. It resists separation into smaller masses and tends to form larger globules when divided, unless held apart by some substance that will cut each particle separately. Each minute sphere will adopt itself to the shape of the tubular structure through which it may pass and by virtue of its superior gravitating power, being fourteen times heavier than water, cleanses the tissues through which it circulates. It is in this manner by depurating, *i. e.* forcing out by its presence, effete material through the tissues that

mercury is entitled to the appellation of "alterative."

Dr. Clevenger then enumerates the different theories which have from time to time been in vogue among therapeutists to account for the action of mercury. He points out that these theories have been entirely hypothetical, that they have in no instance been demonstrated to be correct. He then draws a comparison between the system and mercury and a city reservoir, with the water which issues from thousands of hydrants. He maintains that without sufficient proof to the contrary, it is as reasonable to suppose that the water in issuing from the hydrants undergoes some chemical change, as to suppose that mercury undergoes the alleged chemical change in its passage through the system. He demands proof of the occurrence of such change, and in the absence of such proof claims precedence for his theory of mechanical action, a theory, at least, which is capable of demonstration, in some instances. His method of accounting for salivation, may give a correct appreciation of his theory of the dynamic action of mercury.

Salivation may be produced by accumulations of the metal in the terminals of the dental arteries, a condition favored by the bony covering of these arteries and their relationship with the carotids. The minute globules would find easier ingress to, than egress from, the dependent portion of the lower jaw bone, and accumulation in the cancellate tissues, gums and salivary glands would account for ptyalism. Mercurials load the circulation and emunctories with effete matter because of their deobstruent effects and ability to insinuate their particles among all tissues, separating the morbid and ulcerated portions from the healthy by the great and universal law of heavy bodies acting in the line of "least resistance." Wound healing is interfered with by these foreign bodies opposing plasticity.

In great or long continued doses the metal would gather in certain areas, and, by occlusion of channels, which small amounts would not affect or would pass through, all the ulcerative processes, neuralgias, epilepsies and general nervous derangements possible for clots or congestions to produce would be just as readily produced by mercury.

Dr. Clevenger's theory is one which has much to recommend it. Although it cannot be said to be original with him having been hinted at by older authorities, to him belongs the credit of having advanced facts and reasons which will go to substantiate it and to remove it from the realm of mere hypothesis, making it a tolerably reliable base upon which to predicate therapeutical action.

Ailanthus Excelsa—Bauchee.

The Transactions of the Grant College Medical Society, Bombay, contains articles descriptive of these drugs. Ailanthus excelsa is a tree common to several parts of India. It is a large tree, with smooth, ash-colored bark.

The author of the article, Mr. Narryan Daji, gives a minute description of the natural history of the drug, as well as the chemical analysis of the bark. The active principle he regards as an acid, called by him "ailantic acid." It is very bitter, and appears to contain the active principle of quassia. In many diseases it has been substituted with benefit for quassia. He found its use to be attended with favorable results in dyspepsia, anorexia, diarrhœa and cholera, and also as a febrifuge in intermittent and remittent fevers.

Bauchee is highly recommended in one of the papers of the Transactions by Mr. Lisbod, as a remedy in leprosy. It is a native medicine, obtained from psoralia corylifolia, a plant belonging to the leguminosæ, and the part used is the seed. This medicine, we are told, is well known to the natives, and has been used by them from the earliest ages in scaly eruptions of the skin, and especially in leucoderma. The author has only tried it in three cases, but his experience confirms the generally received opinion of the natives, that it is a valuable medicine in the treatment of leprosy.

Correspondence.

Replies.

G. W. Hartman, Sidney, Ill.—Wood Betony, Betony Wood.

G. W. HARTMAN, Sidney, Ill.—The plant sent is a specimen of pedicularis Canadensis, or common lousewort, sometimes called wood betony, but quite different from the stachys betonica, which belongs to another family of plants, and goes commonly under the name of betony. The plant is common in the northern States, growing in open woods, perennial, from a few inches to a foot in height, bearing a thick spike of purplish or dull yellow flowers, with an oblique calyx slit open in front, and a narrow hooded corolla, the four stamens covered by its upper lip, and the flattened, sword-shaped pod projecting prominently beyond the calyx in fruit. The leaves are rather large, more or less deeply pinnatifid, and, like the rest of the plant, coarsely pubescent. It belongs to the natural order scrophulariceæ, a family which furnishes some highly important medicinal plants, among them digitalis. It is not improbable that this species may possess valuable properties, but trustworthy observations upon it appear to be wanting.

The Prevention of Diphtheria.

I have just read your editorial in the last number of your journal, on the "Prevention of Diphtheria," and am doubly surprised at finding myself both greater and less than I supposed—greater by the additional title "Rev." with which the correspondent of the Druggists' Circular has chosen to invest me; but however honorable and desirable the title, I beg to say that I have not received it from any higher authority than the said correspondent, and therefore I am not aware that I have any claim to the title "Rev." But *per contra*, I presume, lest I should have been unduly elated with the additional title, comes the depressing announcement that I am not the originator of the "prevention of diphtheria" method, which, up to the time of reading your article, I supposed I was; and I think with good reason, as it certainly was original with me, as I never saw nor heard of such "prophylaxis" before (with how many other persons it was original, I know not), and when I first brought

the subject before our county medical society, in the discussion that followed, none of the members treated it as otherwise than entirely new. Besides, when first published in the GAZETTE you did not call attention to its being, instead of new, simply a revival of a method long known to you. Was the matter ever published in any of the medical periodicals or reported to any medical society by any of the three persons now claiming priority? If so, will you oblige by stating when and where? I find it difficult to understand why a plan of treatment that has been uniformly successful in twelve cases under my own care, and as many more equally satisfactory under the care of other practitioners, who have kindly reported to me since reading my article in the GAZETTE, confining in every instance the disease to the one first taken, and which, therefore, gives promise of entirely preventing its spread, should have attracted so little notice, or if the same as that recommended by me, should so soon have apparently fallen into disuetude. I have been a somewhat close student of medical literature for many years, and have never met any reference to such "preventive treatment."

In conclusion, permit me to refer to a case in our city that proves the cases in which the "preventive treatment" has been so satisfactory, have not all been of a very mild type, as suggested by one of my correspondents :

G. B. had two children taken down with diphtheria, the one a few days after the other ; the attending physician called two other physicians in consultation, one of whom was our health officer, so that there could not reasonably be any doubt of the correctness of the diagnosis. Both children died, the one the day following the other. The preventive treatment was not used by the attending physician. On the day the second child died I was called to see Mrs. B. and their youngest surviving child, both of whom I found had high fever (Mrs. B. 105.5° Fah.), sore throats, etc., but no diphtheritic patches. In addition to febrifuges I immediately ordered the preventive remedies for diphtheria for both of my patients and all the remaining members of the household, and there has been no diphtheria in that family since the two children died. I am aware that it does not necessarily follow that because two of the family had taken the disease that the remaining members would all have it, but from the general habit of the malady the presumption is very strong that some of them would, and I am quite convinced that had nothing been given as a preventive, the two that I was called to attend would have had the diagnostic patches within a few days, or, more probably, hours, from the time I first saw them.

By giving the above a place in your excellent journal you will oblige,

T. R. BUCKHAM (*not Rev.*).

FLINT, Michigan, May 22d, 1880.

Atomizing—Spraying—Vaporizing.

The number of atomizing and spraying instruments is legion. Their utility is very limited, as the particles laden with water instantly gravitate. In addition they are troublesome, as they are very apt to get out of order. I have recently had a vaporizer sent to me for clinical experiment, which was designed by a chemist of New York, Geo. S. Page. It is a metal cup two inches in diameter and one inch deep and disk supported by standards six inches in height. An ordinary petroleum night lamp will furnish the necessary heat for twelve hours. Cresolene, a product of the Phenols, to be procured at any drug store, is the substance employed. Any other medicament can be vaporized.

I tried the vaporizer and cresolene in fourteen cases of pertussis with the most gratifying results. The average duration of treatment was eight days. While the vaporizer was in operation the fits of spasmodic coughing were entirely stopped; and the number during the day, when there was no vaporization, materially curtailed. The best time to use the instrument is at night, closing both windows and doors. Having succeeded so well with the cresolene, I did not experiment with bromide of potassium or ammonium. I obtained similar favorable results in asthma, but the number of cases were too few to enable me to speak authoritatively. Many remedies will abort an attack of asthma, and it is necessary to learn how long the medicine retains it good effects, before we can judge of its benefit.

J. H. EGAN.

PULASKI, Giles Co., Tenn., May 10, 1880.

California Laurel in Dentistry.

The California laurel, introduced to the medical profession by Dr. L. Mann, of California, is an important addition to therapeutics.

Having practiced dentistry for many years, I am aware that many of the ills of life are traced, directly or indirectly, to defective teeth. The time was when the wholesale slaying of the innocents was thought a necessity.

Among the many remedies in dental materia medica, I know of none equal to the fluid extract, or oil, of the California laurel in putting a quietus to an aching tooth. A pledget of cotton saturated with the oil acts kindly when applied to an exposed pulp, or sensitive dentine, enabling us to cap and fill without pain, which is a great desideratum for both dentist and patient.

Temporary relief from that terrible scourge, facial neuralgia, while its cause is being removed, may be obtained by an external application of the fluid extract.

I have used it extensively, the past year, in the treatment of neuralgia, rheumatism, etc., etc., it proving in every instance a great obtunder of pain, and curative in its action.

I could give cases in actual practice, but do not think it necessary at the present.

DR. WM. M. HAMMOND.

MENDOCINO CITY, Cal., May 11, 1880.

Rhus Aromatica in Pulmonary Affections.

I have just been noticing the account of your rhus aromatica and its uses, and am surprised in not seeing it recommended in respiratory affections. It has performed wonderful cures in lung troubles —some supposed to be consumption of years standing. It grows abundantly here, and I prescribe it in whooping cough and colds with good success.

H. W. HALLIDAY, M. D.

FRANKLIN, Robertson Co., Texas, May 7, 1880.

The Therapeutic Gazette

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CARL JUNGK, Ph. G. } Editors.

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The National Pharmaceutical Convention.

THE sixth decennial convention for the revision of the U. S. Pharmacopœia met at Washington on the 5th ult., having been called to order by Dr. James E. Morgan, the only surviving officer of the convention of 1870.

The convention may be considered to have been a success, it having demonstrated the fact that, notwithstanding the formidable opposition from some quarters, this plan of revising the pharmacopœia—inaugurated over half a century ago—still has in it sufficient vitality to accomplish more successfully than any of the other plans suggested the object for which the decennial conventions are called. At the late meeting about forty different incorporated societies and institutions were represented by delegations. Besides these incorporated organizations, delegates were also present from the medical department of the army and the navy and from the marine hospital service. The direct work accomplished at the late convention was not very considerable, the great body of the work, and that comprising the direct object of the meeting having been relegated to a committee, consisting of twenty-five members, with power to fill vacancies and to create them should any of their number be found inactive in the discharge of the duties implied by their appointment in this capacity. This committee is as follows :

Dr. Ruschenberger, Dr. Wormley, Prof. J. M. Maisch, Prof. J. P. Remington, A. B. Taylor, Philadelphia ; Charles Rice, Prof. P. W. Bedford, Dr. H. G. Piffard, Dr. E. R. Squibb, Dr. Castle, New York ; Prof. C. L. Diehl, Louisville ; Dr. Laurence Johnson, Dr. W. S. Thompson, Mr. Parsons, Washington ; Dr. T. F. Wood, N. C.; Louis Dohme, Baltimore ; Dr. Rob. Amory, Prof. Markoe, Dr. E. S. Wood, Thos. Doliber, Boston ; Prof. J. F. Judge, Cincinnati ; Dr. Wall, St. Louis; Dr. Gibbs. U. S. N.; Dr. Huntington, U. S. A.; Prof. Oldberg, Marine Hospital Service.

It will be seen from the composition of this committee that the bulk of the honor and burden of labor has been distributed very largely among the profession of the great Atlantic cities, the great western cities not being represented, except in the cases of Cincinnati, Louisville and St. Louis, each of which cities has one representative upon the committee. We are not disposed to be captious in a matter of this kind, but recognizing the fact of the diversity of climatic conditions and the well known differences in the operation of drugs in diseases classed under the same head in different sections of this great country, it does seem that a committee having in charge the preparation of a work which, for the next ten years, is to be the standard of authority, would have been better qualified to have undertaken such preparation of a work for the whole country had it been, more largely composed of representatives from all parts of the Union. It is certainly not because of any lack of interest displayed by the western profession in this matter that it is so meagerly represented in this committee. The leading schools of pharmacy in the west, the University of Michigan School of Pharmacy and the Chicago College of Pharmacy were each represented in the convention, and we notice in the report of the American Phrmaceutical Association, which will probably be the basis of the coming U. S. P., that members of these schools have borne no small part. Why it is that there schools are not represented on the committee and others who have shown no great interest in the matter have been honored with a position on it, is something which we do not understand. Another peculiarity ot the committee is noticeable in the preponderance of pharmaceutists over medical practitioners. Perhaps this prominence may be conducive to the more effectual preparation of a work in which the practical working physician is so directly interested, but it seems to us that a very grave mistake has been made. It is true the eligible preparation of drugs resides in the hands of the pharmacist, but at best he is but the servant of the physician, and in the preparations which he makes should be guided solely by the therapeutical indications, which the practical physician alone is qualified to point out. Medicine and pharmacy have of late years been drawing more nearly together, and each is yearly becoming more dependent on the other, but we apprehend that the physicians of the country will be loth indeed to surrender what have been considered their prerogatives so largely into the hands of the pharmacist, as it would seem that they are called upon to do by the constitution of the above committee.

We may state briefly the results of the late meeting. The revision is now placed in the hands of a committee of twenty-five members, of which the majority are pharmacists. All measures of capacity are to be abandoned, and quantities are to be expressed only in parts by weight, except in the case of fluid extracts. This will doubtless entail a little confusion among those who are wedded to the present method of indicating the quantity of all fluids by measure, but the plan proposed will add very much to the accuracy in prescription. The "Materia Medica List" and the "Preparations" are to be abolished as distinct portions of the work, and all articles are to be arranged in alphabetical order, such headings, however, as "Extracta," "Infusa," "Tincturæ," etc., to be retained. At the head of each article a short paragraph is to be

added, giving the names of all the preparations into which the substance treated of in this article enters. This feature will be a manifest improvement. In all previous editions no facility was offered the physician when he wished to ascertain what were the officinal preparations of any given drug. To all crude drugs of animal or vegetable origin, concise but complete descriptions are to be added, sufficient to indicate the distinctive characteristics visible to the naked eye, and when necessary, such as are visible under an ordinary common pocket lens, magnifying about ten diameters. Methods for the preparation of morphia, quinia, and other cinchona alkaloids, are to be omitted, but the articles on opium and cinchona shall be accompanied with detailed processes of assay for the articles. The parts by weight of the ingredients are to be expressed in the simplest possible terms, and wherever possible in decimal ratio.

In the new pharmacopœia temperature is to be expressed both in degrees of Centigrade and Fahrenheit, and uniform methods for taking the specific gravity are to be described. Whenever it is necessary to employ definite expressions of weight, as, for instance, when it is directed that a pill mass is to be divided into certain pills containing a certain weight of one or more constituents, this weight is to be expressed both in decimal and apothecaries' weight. In all formulæ the metric system is to have its place, but not exclusively.

It will thus be seen that the entering wedge of the decimal system has been introduced. This is doubtless a move in the right direction, and in thus seeking to introduce the decimal system in a gradual manner, the convention has acted very judiciously. This system seems destined eventually to become the recognized system of weights and measures in this country, as it is largely in England, and exclusively on the continent of Europe. It is well, therefore, that the profession in this country should become familiarized with it, and by thus partially introducing it into the pharmacopœia they will probably, with the revision of 1890, be prepared to substitute it entirely for the system now in vogue. A strong effort was made to have a list of doses added to the new pharmacopœia, but the objection to this from the medical men was sufficiently strong to defeat the effort. This omission of doses we think very wise. A list of this kind would have an authoritative force which should not be given to it, apart from therapeutical considerations.

It will be seen that the basis thus laid down for the committee of revision is essentially the Report of the Am. Pharm. Association, prepared by Chas. E. Rice. Prof. Rice deserves great praise for the labor he expended in the preparation of this report. We congratulate him upon this recognition of his efforts by the convention.

The Modus Operandi of Mercury.

THE scientific therapeutist is so continually perplexed because of his inability to satisfy himself of the methods through which his ends are at times so directly and promptly reached, that he is tempted to renounce the physiological method of arriving at the therapeutic properties of drugs, and throw himself back on a rational empiricism as furnishing the only reliable data upon which to predicate the action of a drug under particular diseased conditions.

The action of an article on the system uninfluenced by disease, has, indeed, come to be regarded by the leading therapeutists as at best but an index—tolerably certain, sometimes, but often pointing the wrong way, to its possible action in the disturbing elements of disease. So unreliable, indeed, is this method that even its most enthusiastic advocate, with no other guide than that which it affords him, prescribes very tentatively in disease, an article giving very definite results in health. Inasmuch as disease is a condition and not an entity, it is not a thing which can be pinned down and drugged into submission. The dynamic action of medicines, therefore, has not been received with any considerable favor. It would certainly simplify medicine very materially, were it possible to thus make it approach to an exact science, but the facts stubbornly refuse to conform themselves to our ideas of what would be the better way.

Dr. S. B. Clevenger, of Chicago, in recent papers in the Chicago Medical Gazette and in the Chicago Medical Journal and Examiner, endeavors to explain the action of mercury on the dynamic theory. We elsewhere give an abstract of his views. There is far from being any unanimity of opinion regarding the manner in which this metal works its very decided effects. That it in some peculiar manner modifies the nutrition of both the solids and fluids in the body, is one of the most incontestable facts of medicine, but the "modus in quo" has, as yet, received no satisfactory elucidation. The prevalent opinion, however, is, that it acts through the medium of forms which result from the chemical changes which it undergoes in the system. What those forms really are, and the precise reactions through which they are generated, has thus far eluded the grasp of the scientist. Dr. Clevenger's theory—if it may be called his theory—therefore, challenges investigation, because of its very definiteness. The human mind rests more satisfied when it can fix itself upon an immovable fact, and this theory promises a certain invariable action of the metal in the system, and one which if it can be demonstrated to exist, must have a very important bearing upon the future applications of the drug. For when it is given us to know that the disturbances which the system undergoes through disease, the different degrees of alkalinity and acidity of the secretions of the alimentary canal, etc., can have no influence in modifying the action of mercury, as they are now universally supposed to have, we can administer the drug with as much certainty of result as we now employ the scalpel. This is a consummation devoutly to be wished.

Dr. Clevenger, himself, does not claim to be the originator of this theory, and can but be amused at the attempts of some of our estimable contemporaries to fix on him its paternity. As far back as 1767 a Dr. Barry described the circulation of mercurial globules through the blood vessels, acting there as a deobstruent, forcing out of the tissues by its superior weight every foreign material, and even in Barry's time the theory that mercury in its metallic form may circulate in the vessels, was not new, for he refers to others who had detected its globules in the bones and other tissues. Boerhaave held that "Every medicine produces its effects mechanically; namely, by the power of its solidity, bulk, figure, and the motion of its particles." To

Dr. Clevenger, however, we think belongs the credit of having advanced the most plausible arguments in support of the theory. Plausible, however, as these arguments are, they do not, in our opinion, thoroughly establish the facts they are advanced to support. It may be truly said that they are more cogent than any that have been advanced in support of the common theory of the action of the metal, but even that by no means establishes the correctness of the dynamic theory. The arguments might—perhaps not with equal force, because of the less tangible nature of the substances—apply in the case of other drugs found unchanged in the circulation. To admit Dr. Clevenger's proposition in regard to the action of mercury, is a concession to the theory of the dynamic action of our medicines—a theory which has been so thoroughly exploded as to have, as far as our knowledge extends, not a single advocate among the scientific men of the present day. In the presence of the untenability of this theory as advanced to account for the action of all other medicines, there seems to us to be no sufficient reason for an exception in the case of mercury.

We have at this time but one question to ask in this connection: How can the denial of any chemical action of mercury be reconciled with the decided influence of the iodide of potassium in increasing the activity of mercury which has lain latent in the system for an indefinite period?

The Physician and the Pharmacist.

VARIABILITY in strength and consequent uncertainty in effect, are the frequent objections urged by the physician against the pharmaceutical preparations, fluid extracts, concentrations, pills, etc., dispensed by the druggist on his prescription. Too frequently these objections have a foundation in fact. Why it is that there is a discrepancy in preparations purporting to be made after the same (the U. S. P.) standard is probably better known to the druggist and pharmacist than to the physician. The latter is too prone to leave the selection of his drugs entirely in the hands of the druggist.

The success of treatment in such cases as require medication is scarcely less dependent on the quality of the drug administered than on the skill of the prescriber. That failure of treatment may be due to inferior quality of the medicament, the experience of the majority of our readers can doubtless attest. The reputation of the physician is thus very largely at the mercy of the druggist and pharmacist, and yet how few physicians are *practically* alive to this fact! Those who make it a point to satisfy themselves as fully as may be of the quality of the articles dispensed on the prescription, are greatly in the minority.

In these days of keen competition in all branches both of the trades and the professions, the preparation of medicines has not escaped the tricks and devices, the adulteration and depreciation of essential properties, which abound in other directions, all with a view to the production of goods with which to undersell those which strictly conform to the recognized standard of excellence. Good goods of whatever class have a standard value, a value based on the worth of the material employed, and the skill necessary to their preparation. The effort to secure trade rather through the cutting of prices than through the improved quality of the manufactures, is one of the great evils of the times—an evil reprehensible wherever practiced, but positively criminal in medicine, where such vital interests are involved. Physicians probably seldom give it a thought to what extent they encourage this evil by relegating the selection of their drugs to others. That there is a vast amount of dishonesty in the manufacture of pharmaceutical preparations, and that it is profitable through the encouragement (unconscious encouragement, usually) given it by the medical practitioner are facts which cannot be gainsaid.

The druggist's interest in drugs is chiefly commercial, and he is thus tempted to buy from whom he can buy the cheapest. He cannot judge of the value of such prepared goods as he may purchase. This value can only be fixed by therapeutic tests, and the physician who carefully notes effects, discriminating, as well as he may, between what is due to drugs and what to nature. This being the case it becomes physicians to be deeply interested in such houses of manufacturing pharmacists as they may by experience have found to give them reliable preparations, and to support such houses to the exclusion of all such as are guilty of sophistication, or adulteration or other device whereby to lower the price of their wares.

It is not flattering to the art of pharmacy, as practiced in this country, that in order to secure the desired effect of a drug the physician is obliged to specify on his prescription the name of the house preparing it, but the necessity for thus doing nevertheless exists. Among the many whose goods are on the druggists' shelves there are some who do not keep their preparations up to the officinal standard, and lest, perchance, the druggist should, because of the cheapness of such, dispense them in the prescription, it is necessary for the physician to specify the particular house whose goods he may know to be reliable.

It may be asserted as a general rule that cheap goods are poor goods. It is a rule recognized in every other branch of manufacture, and this practical disregard of it in medicine is at the expense both of the patient's welfare and the practitioner's reputation.

It has become fashionable in some quarters for physicians to regard the manufacturing pharmacist with suspicion, and often with too much reason. To condemn all for the delinquencies of a few is, however, manifestly unjust. Such a course is not the one to bring manufacturing pharmacy up to the desired standard of excellence. Let physicians rather recognize merit when found; by rewarding it with their patronage, and by making it a point to refrain from prescribing the manufactures of such houses whose practices are tainted with suspicion of dishonesty. Such a course will do more than volumes of periodical abuse, and expressions of suspicion of manufacturing pharmacists as a whole, towards bringing about a much needed reform. In the absence of proper governmental interference to guard against adulteration and sophistication, the remedy lies entirely in the hands of the physician. Not until he applies the remedy has he discharged his whole duty, to his patient and to himself.

Proprietary Remedies.

THE Country Practitioner, in its May number, has a short note on the question of proprietary remedies, which commends itself to the attentive consideration of medinal practitioners. It says, "chemists and pharmacists are making rapid strides in the discovery of new remedies and new combinations, but they have, unfortunately, a strong disposition to put them forth under proprietary restrictions, only saved from the odium of secret nostrums by the publication of the formulæ. By this means the medical fraternity are induced to experiment with them and certify as to their effect. Once used, many of these are found on our drug shelves, bottled and labled ready for the people, independent of medical advice. Of course, we recognize the fact that a house which, at great expense has produced a valuable article has a right to the emoluments arising therefrom, if any, and that they claim this manner of protecting themselves, and we are also aware of the fact that a strictly honorable house will take no mean advantage from the recommendations from medical men. But the profession must guard themselves from others of less honor and integrity. On the other hand there are many new preparations that we are impelled from regard for our patients and their pecuniary interests to use. * * * * The code of ethics is getting very close shaving by these certificates and our national body at the next meeting had better look well to the fences, or some or the "choice stock may get out of the pasture."

This, it seems to us, is a very fair statement of the case, embodying facts, which we have hertofore on several occasions laid before our readers. It seems to us to be one of the most inconsistent things of which the profession is guilty to lend their support to houses whose conduct is not only in direct violation of the code of ethics by which the profession is ostensibly governed, but which also operates to the direct pecuniary loss of the medical practitioner. The profession have themselves largely to blame for the abuses to which the practice of copyrighting medicines has led. That the system has been productive of great injury not only to the profession directly, but to the people indirectly, admits of no doubt. The mischief is the theme of periodical protest both from the medical journals which are supposed to represent the great body of the profession and also from the medical societies which, perhaps, more faithfully reflect the sentiments of the active working practitioner, being composed as they are of those who are directly engaged in practice. But in spite of these protests, the evil continues—chafe as they may, under the abuses which they not only tolerate, but have actually been instrumental in fostering, the profession content themselves with a course of chronic grumbling. They hold the remedy in their own hands. Let it once be known that they have determined not to support the manufacturing house which secures the copyright and holds the exclusive control of the preparations which they place in the market, and the evil of which they so justly complain will be speedily eradicated. We do not, of course, expect that such action on the part of the profession, would put a stop to copyrighting and patenting, but it would undoubtedly have the effect of drawing a distinct line between quackery and regular medicine. It would obviate the possibility of houses sailing under the true colors for piratical purposes. Of course the desire of the manufacturing houses to secure the exclusive control of a drug or preparation, or compound of drugs is a perfectly legitimate piece of business enterprise, but let it secure this control through a proper display of such enterprise and not through means condemned not only by professional ethics but also by the unwritten rules of honorable trade.

At the 1879 meeting of the American Medical Association a resolution was introduced pledging that representative body of the profession to a denunciation of the practice of copyrighting. This resolution was introduced by the Judicial Council, which is expected to report upon it at the approaching June meeting of the association, in New York. We await with interest the report of the Council.

Since the above was written the American Medical Association has met, but owing to absence of the members of the Judicial Council who was delegated to prepare the report on the subject referred to the consideration of the matter was postponed another year.

Pancreatine.

THE part which the pancreas plays in the process of digestion is probably not sufficiently borne in mind by the general practitioner. It is customary to refer all defects in the digestion and assimilation of food directly to the stomach, and to direct treatment to that organ; hence the indiscriminate use of pepsin. That this principle is a valuable one has been abundantly demonstrated, but that it is frequently unproductive of the good that is hoped for it, the experience of every practitioner can testify, the cause, doubtless, being the fact that the dyspeptic symptoms are not referred to stomachic but to intestinal indigestion.

Pharmacy has done medicine a service by placing in its hands an agent calculated to meet the indications in a considerable proportion of the cases of dyspepsia met with in practice, viz., pancreatine. Pancreatine, the name conferred on the pancreatic juice itself, was first brought to the notice of medical men by Dr. G. Harley as early as 1858. It remained, however, for Dr. Dobell, Physician to the Royal Hospital for Diseases of the Chest, to make practical use of the article. The results of his therapeutic tests proved conclusively not only that pancreatine as secreted by the pancreas plays an important part in the digestion of fats, but that the principle extracted from the pancreas of the hog is capable of supplying a natural deficiency of the product in the human subject.

Properly prepared pancreatine contains the three distinct digestive ferments contained in the fresh juice, myopsine, steopsine and amylopsine. The first of these, myopsine, has the power of digesting albumen in a manner similar to pepsin, but has no effect on starch or fats. Steopsine emulsifies fatty substances, but has no action on starch; and amylopsine, as its name would indicate, possesses the

property of converting starch into sugar. It will be seen from this statement of the physiological properties of pancreatine, that is, of its various constituents, that they are such as not only make the agent an important factor in digestion, but also make it a valuable adjuvant to pepsin. This property of assisting pepsin is shared by a few other agents, each of which has its own special function; among these are the acids of the stomach and ptyaline, the active principle of saliva, a principle identical in its properties with those of the diastase of malt extract.

We may remark here on the manifest interdependence of these digestive ferments, and that they offer a possible explanation of the discrepancy in the results as observed in the test tube and the effects of any single agent in the stomach. It is not safe to predicate the action of an agent of this class in the system from its action in the so-called tests to which the chemist submits them in the laboratory. Pepsin itself, an agent of undoubted value as an aid to digestion in the stomach, as every practical physician is ready to attest, has lately been pronounced to be practically valueless by a gentleman who confined his experiments to the action of the article on albumen in the test tube. All such experiments, while, doubtless, of some value as an index to the properties of a digestive ferment are, for the reasons indicated, not sufficient to determine the real value of the agent in question. Pancreatine, we are told, is of no aid to digestion, because of the fact that it is converted into peptone in the stomach through the action of pepsin, and thus does not exert its peculiar action on the fats, as it does when it issues from the pancreatic duct. The abundant experience of the physician in the use of pancreatine as an aid to the digestion of fat disproves the deductions drawn from the test tube.

The indications for the employment of pancreatine are present in many diseases. Dr. Dobell, from an extensive experience, found it to be of great value in the treatment of consumption, a disease characterized by defective digestion of fat and excessive waste of the adipose of the system. In the wasting diseases of children, and in the condition of marasmus following prolonged summer diarrhœa, pancreatine has proven an agent of very great value. There are, further, few cases of pronounced dyspepsia in which it may not be combined, with much benefit, with pepsin, and for the reasons we have indicated. A proper appreciation of its properties will have the effect of very materially extending its use.

Erythroxylon Coca as an Antidote to the Opium Habit.

THE article on this subject in the Louisville Medical News, by Prof. E. R. Palmer, of the University of Louisville, an abstract of which we give in our present issue, will be read with much interest by the profession. Certainly the success which has thus far attended Dr. Palmer's use of coca justifies the hope that this agent may be found to be an efficient means of relief from the thraldom of opium. If subsequent trials of it shall corroborate Dr. Palmer's expression regarding it many will wonder why the article was not sooner recommended, for does not its physiological action clearly indicate it as a remedy in the condition of the nervous system induced by the long continued abuse of opium?

The use of coca in the opium habit suggests an interesting fact connected with the subject of the introduction of new remedies. Necessarily the knowledge of the therapeutic application of a comparatively untried drug is very limited, and it requires experience in its use to develop its possibilities. In some cases the conditions for which a drug is first recommended are found to afford by no means the best illustrations of its therapeutic properties. Take the case of eucalyptus globulus, for instance. This article was introduced as an anti-intermittent, but although the very extensive trial to which it has been put has established its reputation as an antidote to the malarial poisoning, this experience has shown it to be not less efficient as a remedy in other affections, as catarrh of the broncho-pulmonary mucous membrane, chronic desquamative nephritis, chronic catarrh of the bladder, as an antiseptic locally applied in chronic ill-conditioned ulcers, etc. Then again in the case of grindelia robusta. This agent was first spoken of as a remedy in spasmodic asthma, but while its usefulness in this affection is now undeniable, it has been ascertained to be scarcely less serviceable in other affections of the respiratory apparatus, as nervous cough, chronic bronchitis, bronchorrhœa, etc.

The lessons furnished by these drugs furnish a strong argument in favor of the reception of new remedies by the educated practitioner. He is by education and through his opportunities especially fitted to develop the possibilities of the recent introductions to the materia medica, and in neglecting to turn his education and facilities in this direction he forfeits an opportunity not only of advancing therapeutics, but of connecting his name with this advancement. Therapeutics is the forte of the American medical profession, and year by year the opinion of our practitioners on the therapeutic properties of drugs, is becoming more and more respected abroad. This is an additional reason why they should interest themselves in investigation into the possibilities of the newer remedies.

We hope Dr. Palmer's views on the use of coca in the opium-habit will be thoroughly tested. And if it relieves the peculiar nervous condition incident to this habit, it may be found useful in other forms of nervous disturbance. The Louisville Medical News says in referring to Dr. Palmer's paper, "One feels like trying coca, with or without the opium-habit. A harmless remedy for the blues is imperial." And so say we.

Preventive Treatment of Diphtheria.

REFERRING to Dr. Buckham's communication in our present number, we agree with the view that the method may have been known to others previous to his use of it, and still be original with him. If Dr. B. arrived at his knowledge of the preventive properties in diphtheria of the drugs named, without having received a hint that they are thus preventive from any source outside of himself, he is entitled to the credit of originality, even though the method had been in use for many years. Certainly we employed

it twenty years ago, as we stated in our last issue, in imitation of the plan regularly pursued by the late Dr. Zina Pitcher. Dr. Pitcher himself laid no claim to being the originator, although his not making this claim is not evidence that the method did not originate with him. To him undoubtedly belongs the credit of having introduced the use of hot water as a hæmostatic, and yet he has left no record of his introduction of it in any article to the medical journals of his day, that we are aware of. Dr. T. Addis Emmett, however, in his work on the "Principles and Practice of Gynæcology," gives him credit. Unfortunately for the medical profession, Dr. Pitcher neglected his duty in the matter of recording the results of his experience, and it was only those who were most intimately acquainted with him who became aware of his breadth and originality of mind. For our part, so common was this preventive use of the muriate tincture of iron, chlorate of potassa and quinine in this city twenty years ago, as a result of Dr. Pitcher's example, that it never struck us that the method was not generally known to the profession. Dr. Buckham has done a good service in publishing his re-discovery, and we can testify to its effectiveness. But even he is not the first to have published it, although he may have failed to have noticed any "reference to the preventive treatment." We would respectfully refer him to the articles by Dr. E. M. Hunt, in the Medical Record, vol. x, page 417, and vol. xii, page 595.

It is a wise rule in the medical profession that the priority of discovery is accorded him who first lays the new method before his brethren through the recognized channels, that is, the medical press and the medical societies. Drs. Hunt and Buckham have adopted the most effective channel, but the credit, none the less, in our opinion, belongs to the late Dr. Pitcher.

Tobacco and Paralysis.

A RECENT number of the London Lancet contains a communication in which is reported the remarks of a Mr. Norman, an English surgeon of note, on the subject of tobacco. Mr. Norman expresses himself as opposed to tobacco *in toto*, but says if a man must smoke, let him smoke a pipe. All tobacco, he says, is poisonous, to convince any one of which let him cut up a single cigar, steep it in a wine glass of water and drink the infusion. It will poison him, to all intents and purposes. In smoking a pipe only the smoke of the tobacco is taken; in a cigar the poison is brought in direct contact with the mucous lining of the mouth, and notwithstanding the expectoration a certain portion is absorbed. In time, he further intimates, the system succumbs to this gradual poisoning, and paralysis is the result.

Without giving full credence to this statement, there is certainly enough in it to arrest attention. Paralysis is of very general occurrence in this country, and cigar smoking is well nigh universal. Doubtless, tobacco is a poison whose effects are, of course, proportioned to the amount taken into the system. The universality of the desire for tobacco would, however, seem to argue that the weed, properly employed, has some useful purpose. That it has a soothing, quieting influence over the nervous system admits of little doubt. The question naturally follows, does this influence, unduly prolonged and inordinately indulged in, so exhaust the nervous tissue as to cause it to break down? It would be an interesting as well as a profitable inquiry to institute among paralytics whether smoking had anything to do with inducing the paralysis, and whether they were in the habit of smoking cigars or pipes, and if pipes, what kind of pipes.

Publisher's Notice.

I DESIRE to caution the physicians of Missouri, Arkansas and neighboring States, against one Dr. Arons, who has assumed to himself, and without authority, the agency of THE THERAPEUTIC GAZETTE in that territory. This party wrote me from Marshfield, Mo., some time ago, requesting the privilege of soliciting for this journal on the commission basis. I corresponded, but made no arrangement with him, and it is on the strength of this correspondence alone that he has taken on himself the agency, and has sent in a number of names unaccompanied by the necessary remittances, which he has probably received. Owing to his erratic movements, I have been unable to reach this Dr. Arons in such a manner as would effectually put a stop to his soliciting, and therefore take this means of warning the profession that he has no authority either to receive subscriptions or collect money for THE THERAPEUTIC GAZETTE.

GEORGE S. DAVIS.

Errata.

In our article "On Bromide of Ethyl" in our last issue, it is stated that "carbonic acid has a decided anæsthetic action." We wrote carbonic *oxide*, but the intelligent compositor thought we meant *acid*, and the proof reader failed to detect the scientific inaccuracy.

Book Reviews and Notices.

Vol. I. Venereal Diseases. By E. L. Keyes, A. M., M. D., Adjunct Professor of Surgery and Professor of Dermatology in Bellevue Hospital Medical College, Consulting Surgeon to the Charity Hospital, Surgeon to Bellevue Hospital, etc. Now ready.

Vols. II and III. A Treatise on Foreign Bodies in Surgical Practice. By Alfred Poulet, M. D., Adjutant Surgeon-Major, Inspector of the School for Military Medicine at Val-de-Grace. Illustrated by Original Wood Engravings; Translated from the French. Now ready.

Vol. IV. A Treatise on the Continued and Periodical Fevers. By James C. Wilson, M. D., Attending Physician to Philadelphia Hospital and to the Hospital of the Jefferson Medical College, and Lecturer on Physical Diagnosis at Jefferson Medical College, Fellow of the College of Physicians of Philadelphia, Pa., etc. With an Introduction by J. M. Da Costa, M. D.

Vol. V. Diagnosis and Treatment of Diseases of the Ear. By Albert H. Buck, M. D., Instructor in Otology in the College of Physicians and Surgeons, New York; Aural Surgeon to the New York Eye and Ear Infirmary; Editor of Ziemssen's Cyclopædia of the Practice of Medicine, and Editor of "A Treatise on Hygiene and Public Health."

Vol. VI. A Handbook of Physical Diagnosis; Comprising the Throat, Thorax and Abdomen. By Dr. Paul Guttmann, Privat-Docent in Medicine, University of Berlin. Translated from the Third German Edition by Alex. Napier, M. D., Fel. Fac. Physicians and Surgeons, Glasgow. American Edition, with a Colored Plate and Numerous Illustrations.

Vols. VII, VIII and IX. Therapeutics. Translated by D. F. Lincoln, M. D., from the Materia Medica and Therapeutics of A. Trousseau, M. D., Professor of Therapeutics of the Faculty of Medicine of Paris, Physician to l'Hotel Dieu, etc., etc.; H. Pidoux, M. D., Member of the Academy of Medicine, Paris, etc., etc., and Constantine Paul, M. D., Adjunct Professor of the Faculty of Paris, Physician to the St. Antoine Hospital, etc. Ninth French Edition, Revised and Edited.

Vol. X. A Treatise on Common Forms of Functional Nervous Diseases. By L. Putzel, M. D., Visiting Physician for Nervous Diseases, Randall's Island Hospital; Physician to the Class for Nervous Diseases, Bellevue Hospital out-Door Department, and Pathologist to the Lunatic Asylum, B. I.

Vol. XI. Minor Surgical Gynæcology. A Manual of Practical Hints and Methods of Procedure in Gynæcological Practice, for the use of Practitioners of Medicine. By Paul F. Mundé, M. D., Editor of the American Journal of Obstetrics and Diseases of Women and Children, Obstetric Surgeon to Maternity Hospital, Attending Physician for Diseases of Women to the Out-Door Department of Mt. Sinai Hospital.

Vol. XII. A Practical Manual of Diseases and Deformities of the Joints. With Special Reference to their Diagnosis and Mechanical Treatment, Particularly Designed for the Use of General Practitioners of Medicine. By Le Roy Milton Yale, A. M., M. D., Surgeon to Bellevue Hospital, Lecturer Adjunct on Orthopœdic Surgery in Bellevue Medical College.

We give above the series of Wood's Library of Standard Medical Authors for 1880. Of these we have received Vols. I, III, IV and VI, and find they are an improvement on those of 1879. The paper is more highly finished, more engravings are used, the binding is more tasty, and an appropriate design has been added to the backs, and although the price has been increased to $15 for the series, the Library will contain about a thousand more pages than that of 1879.

Besides, the works are written by well known authors, eminent in their specialties, which adds much to their value, as they are up to the times.

Vol. I. Venereal Diseases, Including Stricture of the Male Urethra. By E. L. Keyes, A. M., M. D.

This is a valuable work on the subject on which it treats, and is ably presented by its author. He is a believer in the duality of syphilis. True syphilis and chancroids with him are distinct diseases, and require distinct treatment. He believes that something more than an induration in a sore is necessary in order to prove it to be a syphilitic chancre. He is decidedly opposed to the teaching of the new school in urethral pathology, which seems to claim that every natural induration in the tissues of the pendulous urethra is a stricture fit for cutting, and that all the ills and ails of the genito-urinary passages are accounted for by these indurations, and are to be cured by cutting.

We are glad to notice that the author looks upon mercury as the remedy for syphilis, and although the iodides play an important part in the cure, yet when they have done their work mercury has to be called in to endorse the cure and prevent a return of the symptoms.

We like his mode of diagnosis, his prognosis and treatment. It is a scientific work on the subject which we can fully indorse. It is well illustrated by photographs from nature by Dr. G. H. Fox, of New York. This initial number for 1880 is a decided success.

Vols. III and IV. A Treatise on Foreign Bodies in Surgical Practice. By Alfred Poulet, M. D. Vols. I and II.

This work has no analogue in our classical literature. Apart from a few more or less complete monographs and from a few useful ideas, we possess no important guide for the neophite as he enters upon his surgical profession. We hail with pleasure any work that fills this great hiatus in our surgical literature. Any graduate in medicine and surgery with moderate ability can amputate a limb, set a fracture or reduce a dislocation, but, as our author says, he will be embarrassed to remove a small stone or pea from the ear, a metallic splinter from the cornea or a broken catheter in the urethra.

The author claims that his book, despite its imperfections, will be a guide, and can be consulted with profit. We have examined the work and fully agree with him. We have often wondered that some writer on surgery had not presented the subject in this light. To the surgeon of experience the book may seem elementary, yet he might learn something from it; but to the young surgeon entering upon practice it is invaluable. It is well illustrated with wood cuts. Keyes on Venereal Diseases and Poulet on Foreign Bodies in Surgical Practice are worth the entire price of the series for the new beginner; and to all such, and even to those of matured experience, we cordially recommend them. Both have a full index.

Vol. VI. A Handbook of Physical Diagnosis. By Dr. Paul Guttmann.

This, with some slight variations, is a copy of a work by the same author and translated by the same translator as the one issued by the New Sydenham Society for 1879. This work is illustrated by eighty-nine fine wood cuts and a table of nine colors of the urine, from a pale yellow to a brownish-black (after Vogel), forms the frontispiece.

The design of this work is to present a concise description of the various methods pursued in clinical examination of the thoracic or abdominal organs in health and disease, and an estimate of the diagnostic value of the results so obtained. That this work is appreciated we state that it has been translated into Italian, Russian, Spanish, Polish and into English by the N. S. Society, London. The New Sydenham's translation has no illustrations, and hence Wood's edition is all the more valuable.

We are familiar with the author's ideas, and have found them practical and correct, and hence endorse it as a valuable acquisition to the literature of clinical medicine. Wm. Wood & Co., publishers, 27 Great Jones St., New York city. E. B. Smith & Co., Detroit.

Common Mind Troubles, and the Secret of a Clear Head. By J Mortimer Granville, M. D., M. R. C. S., etc. Edited, with Additions, by an American Physician. From the Publisher, D. G. Brinton, 115 South 7th St., Philadelphia.

This book has reached the fifth thousand in London, and is now for the first time introduced to the American public. It is an effort, and on the whole a successful one, to popularize a difficult subject for general reading. There is a good strong vein of real common sense in many parts of the book, which, combined with considerable originality, makes the book well worthy of being read by everybody. For instance, page 17 he says:

"We all have our failings, and for the most part we regard them tenderly. They do not count as offences; scarcely are they held to be faults. * * A sentiment of pity for, and even sympathy with, weakness overpowers the sense of grievance; the voice of the inward monitor is silenced, and the self-excused conscience sleeps. Meanwhile failings are the worst and most mischievous, the deadliest and least curable of the ills to which the moral nature o

man is heir. They are the source of evil whence spring the blackest vices of human character, the false roots that nourish and sustain its parasites and steal the sap of its inner life. * * * It generally happens that what strikes the observer as a failing is compounded of errors in feeling, thought and action combined."

Here is a little nut for the materialists to crack, page 20:

"Meantime it is evident, while the range of brain-power determines the manifestation of mind, it neither measures, nor affirms, nor disproves the independent existence of mind."

One great proof of a clear mind is the manner in which it presents definitions. Our author is very clear, as the following samples will show:

"Inability to remember is as often a fault in method as a defect of power," page 32.

"Memory is not so much a faculty as a function, which may be performed by either or several of the powers of the mind; but these require to be specially cultivated," page 34.

"Man lives in the present, and this matter of self-remedy is an affair of now," page 44.

"Life is very much an affair of rythm, and a sound mind in a sound body can be secured only by concord, method and orderly self-control," page 56.

We find in the book only one particular thing with which we do not agree, or rather, which is not, to our mind, consistent in its logic. On page 35 he says:

"Any cause or state which impairs the integrity of the circulation of blood through a part of the brain or disturbs the rythm of nerve energy, may impair the memory; and this is why loss of memory or disorder of the function comes to possess grave interest."

This condition implies disorder of the brain tissue, else the circulation would not be interfered with.

On page 64, however, he states in much better form the true principle.

"It is a curious feature of the early forms of speech-disorder springing from physical sources—for example, incipient disease of the brain—that particular elements of knowledge seem to be effaced, and special processes of thought or reasoning can no longer be performed, although the great mass of the mind-work goes on unimpaired."

The temptation to quote many good things from the pages of this book is strong, but we must be satisfied with recommending our readers to get the book and cull for themselves.

Post-Mortem Examinations with Especial Reference to Medico-Legal Practice. By Prof. Rudolph Virchow, of the Berlin Charitè Hospital. Translated from the Second German Edition by Dr. T. P. Smith. Philadelphia: Presley Blakiston, 1012 Walnut St. 1880. Price, $1.25. For sale by E. B. Smith & Co., Detroit.

The author first describes the method of performing *post-mortem* examinations for clinical purposes, the order and plan to be pursued, what is to be noticed, and how to do it. The method of making pathological incisions; the instruments used; number of incisions; how to preserve the connections of the divided portions; dissection of the brain; dissection of the heart; plates and examples; still-born children; methods of opening the thorax; how to make examinations for medico-legal purposes, and how to draw up or make a report, etc. This is a very valuable little book, concise and to the point, neither too much nor too little, and the more so as coming from such a distinguished author. Dr. Smith is to be commended in presenting it to the American reader. Post-mortems are, as a rule, bungled, whether for scientific or medico-legal purposes. Every physician and every coroner should have a copy and be required to conform to its instructions. The facts could then be properly placed before experts, and the courts would have no difficulty in arriving at a truthful result.

Sea-Air and Sea-Breathing. By John H. Packard, M. D., Surgeon to the Episcopal Hospital, etc. Philadelphia: Presley Blakiston, 1012 Walnut St. 1880. For sale in Detroit by E. B. Smith & Co. Price, 50 cents.

This is No. 11 of Keen's American Health Primers, and tells all about sea-bathing and seaside resorts. As the hegira to the seaside is becoming annually more fashionable, whether for health or recreation, this little book is invaluable to all those who seek the seaside for either purpose. It should be purchased before starting, as it would afford valuable and pleasant reading on the journey; at the same time the reader would be posted as to accidents and their treatment, and also to the selection of a cottage by the shore wherein to reside.

Therapeutic Progress.

ABSORBENT AND ANTISEPTIC SURGICAL DRESSINGS.—In a recent clinical lecture delivered at the Queen's Hospital, Birmingham, Mr. Sampson Gamgee said: Here is a piece of the finest cotton wool, such as is ordinarily used by jewelers. You see it floats on water and rises to the surface any number of times after being pushed to the bottom of the glass. It will float for weeks, as I have proved by repeated trials. I drop into a tumbler of water this pledget of cotton wool, made absorbent by the removal of oily matter and other impurities, and you see that it sinks to the bottom in a very few seconds. I now envelop a pledget of absorbent cotton in a piece of unbleached gauze, such as is commonly used in surgical practice. In spite of the proved absorbing power of the contained cotton so impermeable is the gauze that the pledget floats and resists forcible immersion. I have had a little pad so made floating on a tumbler of water in my study for thirty-five days. If, however, you make a little pad with the absorbent cotton and the same kind of gauze bleached, you will find the substance sucks up the water with avidity and sinks at once. So with the bandages. Here is a piece of ordinary calico bandage; it floats in the basin like a plank on a pond. Here is a piece of open wove bandage absorbent; it sinks the instant I drop it on the water.

Clinical experience has demonstrated the great therapeutic value of the absorbent materials. Discharges drain through them so readily that wounds are kept clean and the surrounding parts dry. Union rapidly and painlessly consolidates under the elastic pressure. So great is the elasticity of the material that the pad I hold in my hand is scarcely flattened, though it has been firmly bandaged on a man's instep for five days. On holding the pad before the fire you see it puff up at once and

quickly regain its original fullness and downy softness.

Here is another pad, soft and elastic, though for a week it has been firmly bandaged to a man's foot inside a millboard molded splint. Here is an absorbent antiseptic pad which is beautifully soft, though it has been tightly screwed down in my copying-press for upward of nine hours.

The absorbent materials lose none of their physical properties when treated with borax, iodine, tannin, and similar substances. Beside the substances named, benzoic and carbolic acid have been employed, and before you are gauze and cotton-wool tissue, pads, and bandages, perfectly absorbent and elastic, and powerfully styptic and antiseptic.

The perfect softness and elasticity of these absorbent materials are of the utmost practical value and comfort. Those qualities render possible, with the most perfect safety, the application of that elastic compression which, with rest and position, is so potent in relieving local congestion and inflammation. That therapeutic action is most clearly and convincingly demonstrated in cases of injury unaccompanied with wound. A woman fell a considerable height from a window which she was cleaning. Evaporating lotion was applied constantly to both feet until I first saw the patient five days after the accident. Both feet were then about equally swollen, the outline of the malleoli quite obliterated, skin deeply mottled as from extravasation of blood. The right heel-bone broken across the middle. To the right limb, from the toes to the knee, I applied a compressing immovable apparatus, constructed with cotton wool, moistened pasteboard, and bandage. The left foot, which was equally swollen, but less injured since it had no fracture, was continuously treated with evaporating lotion. The effect of pressure in relieving pain and reducing the swelling was immediate and continuous. In forty-eight hours the outline of the right ankle was perfect, while the swelling of the left one was undiminished. Both feet eventually regained their shape and function, but it was only by very slow degrees that the swelling decreased in the left foot, which has not been immobilized and compressed.

Admitting the beneficial influence of rest and position, there can be no question that the immediate relief of pain and the rapid subsidence of swelling were chiefly due to smooth elastic pressure. A similar plan of treatment employed in cases of severe sprain and after other injuries attended with great tension, heat, and pain, is followed by equally satisfactory results—almost immediate ease and rapid subsidence.

A very great deal depends upon how pressure is applied. If you bandage a limb firmly with a strong calico roller over ordinary fracture pads, or dense common wadding, against wood or iron splints, the risk is unquestionable; but if you use the softest materials, especially if you use these beautifully elastic pads and soft bandages, you will have reason to congratulate yourselves upon admirable results.

These materials are applicable to a variety of purposes. A patient had slight hæmorrhoids and prolapsus of the rectum, a weak heart and pulmonary congestion. The condition of the rectum was perfectly relieved by a borax and glycerine lotion applied with lint and oiled silk, over which one of these soft pads exercised most comfortable pressure, at the same absorbing discharge from the edges of the dressing and thus preventing very great discomfort. To the chest a linseed poultice was applied, but though made very light its weight was intolerable. The greatest comfort is experienced, however, from one of these layers of absorbent cotton in a double layer of similar gauze. When held before the fire the material puffs up, and is placed on the chest warm and soft as the finest down.

Ordinary cotton wool and muslin do not work up well. This absorbent gauze and cotton wool, however, is perfect; and I foresee that in many other cases, especially in dressing burns, blisters, and bed-sores, the new tissue cannot fail to prove most useful. It is of very great service in foul ulcers and incurable wounds. A case of extensive sloughing ulcer of the foot threatened the loss of the limb until these pads with elastic pressure were applied. The improvement was then rapid and continuous. A case of ulcerated recurrent cancer of the breast in a lady, derived the greatest comfort from these antiseptic absorbent pads and bandages.

But powerfully as the pads take up fluid, they are not sufficient to dispense altogether with the use of drainage-tubes. The removal of a tumor from the top of the left shoulder and side of the neck involved an extensive dissection. The wound measured eight and a half by eight and a half inches, the great vessels and the brachial plexus were exposed, and the apex of the lung projected with each inspiration into the bottom of the wound. Not a single bad symptom followed, and the patient was out of bed at the end of a week, convalescence being rapid and uninterrupted. I brought the edges of the wound together by silver sutures, and placed a drainage-tube in the two angles. Over the wound I adjusted absorbent pads with compressing bandage, but the drainage-tubes were left projecting, and separate pads placed over each of them and lightly fixed with a turn of bandage. In this way absorbent pads could be changed without disturbing the greater part of the wound, which healed in the most satisfactory manner.

I have no doubt in practice these absorbent and antiseptic gauze and cotton pads will prove very safe, convenient and comfortable. To have at command, at one and the same time, dressing materials suitable for medical, surgical, and obstetric purposes, combining such important physical and chemical properties as elasticity and anti-putrescence, is a matter of very great practical importance.

You know that the materials which we employ largely contain antiseptics. Southall's hospital plaster, which I use in preference to all other plasters, is prepared with terebinthinate resins. Tenax, carded oakum, and similar materials abound in tar. Styptic colloid is at least as powerfully antiseptic as the compound tincture of benzoin, practically the analogue of the balsamum traumaticum, of which the surgeons of the last century were so fond. The well-known hospital red wash, with its zinc and compound tincture of lavender, is antiseptic; the preparation of turpentine, alcohol

charcoal, and earth are pre-eminently such. When I wrote my papers on the present state of surgery in Paris, in 1867, I found Maisonneuve at the Hôtel Dieu, had been in the habit of employing for six years an antiputrescent lotion containing carbolic acid in large dilution. Demarquay's glycerine dressing of the same date, Campbell de Morgan's chloride of zinc, and many similar applications all had one common excellent object—to counteract putrescence.

Obstetricians to whom I have suggested the use of these pads in childbed, instead of napkins have approved the idea, and put it to the test of experience, which has been so far unanimously satisfactory. It is obvious that it must be most conducive to purity and opposed to infection to receive the natural discharges into a very readily absorbent and powerfully antiseptic pad of downy softness that is changed as often as is necessary and immediately burnt.

A Sad Revelation—Dr. Carus Warburg.—It has been the fate of some men to be appreciated too late. Bread has been asked for during life and refused, but after death a stone is given, and a statue is raised as some recompense for merit.

History furnishes us with many instances of this kind. The sad narrative of Dr. Maclean in The Times, September, 1878, in reference to the position of Dr. Carus Warburg, furnishes us with an instance of the cruel injustice of the world in bestowing its favors, and of the fate that may await men of the highest talent if they forget self, in their desire to benefit their fellow men. Prof. Maclean said that Dr. Carus Warburg was "wanting the common necessaries of life," though he was the discoverer of a remedy which would have made for him a fortune had he kept it secret, like other astute owners of recipes. Through the agency of Dr. Maclean, Warburg revealed to the profession, the composition of his remedy for malarial intermittent fevers and cholera, in the hope that Government might obtain their supply from him. But if any promise of the kind was ever held out it was not fulfilled, for we presume, when the secret of the remedy became public property, it could be procured at a cheaper price, and Government did not seem to consider itself bound to recompense the discoverer. Dr. Warburg was wanting in worldly wisdom in not having a bond—signed, sealed, and delivered—that he should be adequately rewarded for his prescription, and his position will be attributed by some to his own fault in neglecting this precaution. We are not informed whether any inducements were held out by Professor Maclean, but the facts are that Warburg parted with his secret to him gratuitously, and was absolutely destitute. He possessed a prescription of his own of a complex nature, more so even than that of chlorodyne, a remedy of high reputation in India against the malignant malarias of that country, and cholera. Its composition was made known by Professor Maclean in the columns of a contemporary several years since, and he gave his unqualified support to all that had been said in its favour. Dr. Broadbent has, moreover, testified that its efficacy cannot be disputed. The following is the formula:—

Aloes (Socot.) libram;
Rad. rhei (East India);
Sem. Angelicæ;
a. Confec. Damocratis. AA uncias quatuor.
Rad. Helenii;
Croci salivi;
Sem. Fœniculi;
b. Cret. Preparat. AA uncias duas.
Rad. Gentianæ:
Rad. Zedoariæ;
Prep. Cubeb;
Myrrh elect.;
Camphor;
c. Bolet Laricis. AA unciam.

The above ingredients are to be digested with 500 oz. of proof spirit in a water bath for twelve hours, then expressed and ten ounces of disulphate of quinine added; the mixture to be replaced in the water bath until all the quinine be dissolved. The liquor when cool is to be filtered, and is then fit for use.

The tincture is of a deep brown colour, has an aromatic and slightly terebinthinate odor, and an intensely bitter and warm aromatic taste.

Quinine is one of the most important ingredients, and, as Professor Maclean observes, many may say this vaunted remedy is only quinine concealed in a farrago of inert substances for purposes of mystification. To this objection Prof. Maclean answers:—

"I have treated remittent fevers of every degree of severity, contracted in the jungles of the Deccan and Mysore, at the base of mountain ranges in India, on the Coromandel coast, in the pestilential islands of the Madras Presidency, on the malarial rivers of China, and in men brought to Netley Hospital from the swamps of the Gold Coast, and I affirm that I have never seen quinine when given alone act in the manner characteristic of Warburg's tincture."

We may take it for granted that it is of inestimable value in Indian practice, whilst it has also been found useful by physicians in this country. Dr. Warburg must be complimented for acting in the spirit of a true physician in revealing its mode of preparation, but it is a matter of regret that he should have lost by his honorable conduct. In the absence of more definite information as to the exact circumstances under which Dr. Warburg communicated his secret to Dr. Maclean, is it impossible for us to censure the Government of the day. If Dr. Warburg has been ungenerously treated we trust that some reparation has been made him. An annuity was granted to the widow of the late Dr. Donovan, of Skibbereen, so well known by his researches on starvation. There is at least a ray of hope that Dr. Warburg's impecuniosity was effectually relieved before it was too late.—*Med. Press and Circular.*

Gentiana Quinquefolia.—Years ago the "oldest inhabitant" knew the herb now technically denominated gentiana, as a panacea, a remedy for everything. It was called the "gall of the earth," and many use this name at the present time. It is valuable to a degree little apprehended. But it will hardly

a. This confection is to be found in the London Pharmacopœia, 1746.

b. Added by Dr. Warburg to correct the acrid taste.

c. This is the Polyporus laricis, Polyporus officinalis, Boletus purgans, or larch-agaric.

cure or be of benefit to every case. I will, however, recapitulate symptoms and indications in which it is especially serviceable.

Case 1.—The tongue exhibited an uniform yellow coating, spread thinly over the whole surface; was covered with a glutinous saliva; the pulse full, soft, quick, and somewhat bounding. There was also nausea, with occasional vomiting of yellow fluid; and likewise pains in the head. Paying no regard to the periods of paroxysms, I prescribed fifteen drops (one gramme) of "reliable tincture" of gentiana every two hours. Also:

℞ Veratri vir. tr. Norw., gtts v.
Aquæ, ʒ vij.

Sig.—Take a teaspoonful every thirty minutes.

I also gave special directions to watch the pulse, for this reason: Gentiana quinquefolia increases the sedative action of veratrum very largely. Hence, when both are administered, the patient should be carefully watched. I have myself several times lost the pulsation in the radial artery, when giving the two in minute quantities; but nux vomica and capsicum soon rendered it again perceptible at the wrist. A word to the wise is sufficient. In such cases "alterative doses" of podophyllin every six hours—perhaps one-thirtieth to one-twentieth of a gramme, triturated with sugar of milk to stimulate secretion, may or may not be necessary after using the two remedies for twenty-four hours.

Case 2.—I observed contracted pupils, general irritability of the nervous system; tongue pointed and with red edges, clean at the margin, but coated thickly at the center, and yellow; pulse quick and rather sharp, with pains in the back of the head and neck. The patient was 25 years of age.

℞ Gentianæ qu., tr. rel., ʒ i.
Gelsemii vers. rad., træ., gtts x ad xv.
Aquæ, ʒ vij.

M. Sig.—One teaspoonful every thirty minutes to an hour.

Commence this without regard to stage or name of disorder. This patient required little further treatment.

Case 3.—The patient was 45 years old; exhibited sickness at stomach and vomiting; pain over the entire head, with sensitiveness of scalp; pulse a little accelerated, but normal in volume; tongue, with thin yellow coating. Exercise increased the sickness of stomach. There was also dizziness and dimness of vision when rising from a sitting or a horizontal position. My prescription was thirty drops of the "reliable mixture" of gentian, to be repeated in two hours if necessary; but it was not necessary.

Case 4.—The patient exhibited a slimy, light yellow coating of the tongue, "cracked" in different directions. There were chills daily; high-colored urine; appetite wanting; pulse full and rather bounding; the tongue hard in appearance.

℞ Gentianæ, tinct. comp., ʒ viij.
Equiseti tinct., ʒ ij.

M. Sig.—One dessertspoonful every two hours.

The bottle was refilled once. The patient was then well.—*N. Y. Med. Tribune.*

Glycerine as Food.—What is the fate of glycerine introduced into the economy? Is it decomposed or excreted? And if the latter, in what form? When large doses are given so as to produce hæmoglobinuria, the urine contains a substance which readily reduces copper, but has been said, on the ground of its effects on polarized light, not to be sugar, but to be probably a decomposition, or transformation product of glycerine.

According to Plosz, moreover, it is not capable of fermentation. It is very difficult to say whether any unaltered glycerine passes away, since the detection of a small quantity in the urine is a matter of great difficulty. It seems certain, however, that the greater part, if not all, is decomposed in the organism, and that when moderate quantities only are given, the decomposition is complete. It was observed by Weiss that the quantity of glycogen in the liver is increased by the administration of glycerine.

From the analogy with other substances which have a similar effect, such as albumen, gums, etc., Munk suggests that the glycerine absorbed from the intestines and carried by the portal vein to the liver is not itself transformed into glycogen, but rather, by its quick decomposition, limits the use of the liver glycogen, or furthers its formation from other materials. However this may be, the glycerine undergoes decomposition without its product having any influence on the changes in albumen, such as the carbohydrates exert. With reference to this, it may be remembered that glycerine has no chemical connection with the carbo-hydrates, but is rather to be regarded as an alcohol—the tertiary alcohol of the propyl series.

The solubility of glycerine renders it highly probable that the greater part of that which is taken into the stomach passes rapidly into the blood. A small part may be unabsorbed, and in the lower part of the intestine may undergo fermentation and reduction, with the formation of butyric acid, carbonic acid, etc., although this decomposition can take place only in a neutral liquid—a condition not easy to obtain in the intestine. Gorup-Besanez has also shown that in an alkaline solution, the action of oxygen in an active state breaks glycerine up into formic, propionic, and perhaps acrylic acids. There is some probability that, in the tissues, where similar conditions obtain, the same decomposition may occur; and the intermediate products, propionic and formic acids, may be further oxidized to their ultimate products, carbonic acid and water. Tcheremetjewski showed that the ingestion of glycerine causes an increase in the excretion of carbonic acid, which Catillon has affirmed may amount to seven per cent. This increase in the production of carbonic acid must be accompanied by the liberation of its equivalent of heat, and so the generation of heat should be increased by the administration of glycerine. Hence there is the highest probability that glycerine may be of service in this respect, but that it is of no value as a tissue food.—*Lancet.*

Therapeutic and Hygienic Management of Consumptives.—James T. Hibbard, M. D., of Richmond, Ind., in a paper on the above subject, which appeared in the St. Louis Medical and Surgical Journal, Feb. 5th, 1880, sums up his conclusions as follows:

1st. Consumption is a self-limited disease; and

2d. It should, therefore, be managed through its stages, as is done with other disorders of its class.

3d. Statistics point to the conclusion that rather more than eleven per cent. of consumptives will recover if left to nature entirely.

4th. Clinical study leads to the inference that judi

cious treatment may increase this percentage of recovery.

5th. A survey of the popular professional methods of management raises the presumption that they are far from the best.

6th. Consumption has no specifics and demands but little medicine, the only drugs required for their essential and direct action being the alkaloids of cinchona and opium, and perhaps iron.

7th. Recognizing the real nature of consumption, the profession should set their faces firmly against the multitudinous remedies prescribed in many text-books and positively repudiate the numerous nostrums now so industriously forced on the attention of practitioners by manufacturing chemists and other mercenary persons.

8th. Rational simplicity in therapeutics is desirable in all diseases; it is a scientific and a humane necessity in consumption.—*Phila. Med. and Surg. Reporter.*

New Remedies.

NEW REMEDIES.—The time when remedies for the cure of diseases were first used, is so remote in the misty history of the past, that even the fables of Chiron or the Homeric speculations concerning Esculapius are sources from which we can derive no definite idea. We, however, learn from history that as the exigencies of the times in which the people lived before medicine was known, made it a necessity to combat disease, and as necessity was then, as now, "the mother of invention," many strange and mysterious devices, priestly incantations were resorted to for the healing of the sick.

Perhaps the first treatise of note on the subject of medicine for healing wounds and reducing dislocations and fractures was written by Hippocrates, who was born 460 B. C. His writings on anatomy and physiology were so remarkable that, by the unanimous consent of the learned, he has been venerated as the father of rational medicine. From the days of Hippocrates to time when Galen lived, about 300 years subsequently, there were but few men of note, Praxagoras and Aristotle being among the most prominent. Galen had a far wider share of renown than any other physician; for more than twelve centuries his authority reigned supreme in the schools; even facts were disputed which were against his authority. Many of his theories were wild speculations, but he assumed that the human system was composed of solids, fluids, and a third principle, the spirits. He taught the human soul to be composed of three parts; a vegetative, residing in the liver; an irascible, in the heart; and a rational, having its seat in the brain. He dissected animals only, and considering the narrowness of his resources, his descriptions are wonderfully correct, and comprehend all that was known of anatomy until the time of Vesalius, who lived during the sixteenth century.

During the reign of the Ptolemies, medicine received great attention, and Alexandria became the center of science and learning of the time. Drugs were brought from distant countries, and human dissection was authorized, which gave a great impulse to medical science in Greece. To Celsus, who lived during the first century, is probably due the honor of writing the first book on materia medica. The remedies described in the works on materia medica from the first down to the eighteenth century are remarkable, not only for their number, but in many instances, for the number of ingredients of which a potion of medicine was composed. The essence of human skulls was considered a remedy for hypochondria, as was also a viper reduced to ashes, considered a sovereign remedy for bites of poisonous serpents. During the sixteenth century, the beneficial influence of chemistry began to throw light upon the science of medicine, and the materia medica was enriched by a variety of metallic and alkaline salts. The new world yielded guaiacum, sarsaparilla, ipecacuanha, etc. The uses of Peruvian bark were discovered in 1639. Mercury, antimony, opium, jalap and many of the remedies that are now in popular use were known centuries ago, and are classed as being old remedies. Our materia medica is constantly being enlarged by the discovery of new chemical preparations and medicinal plants that are valuable in the treatment of disease.

Having given a brief and imperfect history of the remedies used in the past, I will now consider: 1st, Our source of remedies; 2nd, The rules that should be adopted in selecting a remedy; 3rd, Some of the lately discovered remedies.

The source whence the true and unbiased physician derives his remedies is the great store house of nature; whether it be the animal, vegetable or mineral kingdom; and the remedy that will cure disease in the shortest time, all things being equal, is the one that should be selected. With the aid of chemistry our resinoids, alkaloids, vegetable and mineral salts and their chemical combinations are constantly being increased in number, and the form, size and taste of our agents are assuming more desirable qualities. Formerly a dose of cinchona bark was large enough to unnerve the most heroic patient's stomach, and often caused him to reverse the famous Shakesperian quotation by exclaiming, "Lay on no longer, Macduff." We hope in time to so perfect the science of therapeutics that a dose of medicine, which is an indispensable necessity, can be made by a luxury as well. How to determine what remedy to administer is a subject of great importance, one that demands careful study at the hands of a physician. In order that success attend his efforts, he must thoroughly familiarize himself with the deviation from a condition of health, for a perfect physiological condition of the system is the standard by which we can measure the degree of deviation from a normal state. Disease, according to our present nosology, may be formed of one or more pathological changes, having a determinate relation to one another. We cannot expect to reach all of these with one remedy, except in those cases in which one lesion is primary and the others result from it; but we should, according to my opinion, have a remedy for each pathological feature, using the remedy for that first, which is first in the chain of morbid action, and that second, which is second, and so on. As an example we analyze a case of fever, and find it to consist of a lesion of circulation, a lesion of innervation, a lesion of secretion, a lesion of the blood and a lesion of nutrition; each of these is regarded as a distinct element of the disease, but in the order named—the

one depending on the other to a certain extent. A remedy that will rectify the lesion of the circulation will sometimes be sufficient to arrest the entire chain of morbid phenomena, as we notice in simple fevers, or a remedy that will correct the lesion of the blood, this being the primary, and the cause of the various morbid processes, will be a specific for all, as when quinine arrests an intermittent or remittent fever. When we study disease in this way, we arrive at a definite conclusion with reference to the remedy that will correct the morbid condition of the system, and the success of direct or specific medication depends upon the definiteness of our diagnosis in determining the exact condition of a function or part. It is not sufficient to know that the tongue is coated, indicating an impairment or arrest of digestion. We make this organ give the history of blood lesions as well as of gastric and intestinal derangements. We learn by careful observation, and by keeping a correct result of many cases, that pallid mucous membranes with white coat demand alkalies, and deep red mucous membranes and brown coat of tongue, call for acids ; that a dirty white pasty coat requires the alkaline sulphates. In selecting a sedative it is not enough to know that the pulse is frequent, for frequency is but one element of the lesion, and we have to determine in addition the strength or weakness of the circulation and the condition of the nervous system that controls this function. Thus, when there is strength and frequency we employ veratrum ; feebleness with frequency, aconite ; excitation of nervous system with strength, gelseminum. Having determined what the pathological condition in a patient is, and analyzed the several morbid expressions manifest, the next step is the selection of a remedy that will correct the disease. In treating this part of my subject I will not pretend to suggest the modus operandi of the action of a remedy, as that properly belongs to another department, but I will confine myself to the consideration of the subject of applying a remedy when the diagnosis has been made as already directed. I will here state that as certain substances taken into the system, nourish certain parts of the body only, as examples, the phosphates, the brain and nervous systems, lime, the bony structure, nitrogenous materials, the muscular system, we can reasonably conclude that remedial agents likewise have an affinity for certain organs or parts of the system, and consequently exert their action on those parts of the system. We know that opium will act as a narcotic, that jalap will produce catharsis, and quinine is a certain antiperiodic. No doubt all remedies have an action more or less decisive, which is exerted on certain organs, which action is always manifested in a singular manner. Oculists apply atropine to the eye of a patient ; they know from past experience that dilation of the pupil will follow, and when the physicians administer morphia hypodermically, in proper doses, they are almost certain that narcotism will be the almost infallible result, and I could go on and enumerate cases in which a remedy, if given when indicated, the result will be almost always the same. Prescribing remedies that are indicated by the expression of the morbid condition present is attended with a certainty of result that never can be obtained by the blunderbuss method of scattering shot all over the field, giving a probability that some will reach the mark.

Direct or specific medication requires specific diagnosis. We must know exactly what the departure from health is, and, knowing this we may select a remedy which will correct it. As was remarked before, the physician must have : first, a thorough knowledge of healthy life, and be able to recognize it, or any departure from it. Thus, anatomy and physiology are the true basis of direct medication, for if we do not know healthy structure and function, it is not possible that we can know diseased structure and function. Take the remedy gelseminum sempervirens, or yellow jessamine, one that is not entirely new, but of which enough is known so that a description and history would be superfluous, and we find that works on materia medica give it as having medicinal properties almost as long as the moral law, while it usually has but a few prominent properties that can be relied upon. I will briefly give a description of its action. Gelseminum exerts a special influence upon the brain, and, to a less extent, upon the spinal center and sympathetic nerves. It relieves irritation and determination of the blood and the disordered innervation that flows from it. Given, a case of irritation and determination of blood to the brain, marked by flushed face, bright eyes, contracted pupils, restlessness and irratibility, we give gelseminum with a certainty. This being a common complication in diseases of childhood, it is especially valuable in that class of diseases. We never could discover any important influence from the remedy other than through its action upon the nervous system. It is contra-indicated when the circulation is feeble, and when there is a tendency to congestion, especially if there is a feeble circulation in the nerve centers. We never give it when the eyes are dull, pupils dilated, and countenance expressionless ; in such cases it may prove fatal in quite moderate doses, even as small as thirty drops of the common tincture. This remedy is valuable in many diseases, but I fail to remember a single instance, while using it for fifteen years, in which I derived any therepeutic benefit from its use, unless given when the above named indications were present. I will cite two conditions in which its administration acts gratefully and with a certainty : all physicians can call to mind the many long hours spent during a protracted labor, caused by a firm and unyielding os and cervix, when the membranes are thin and tightly stretched over the advancing vertex. This condition is almost invariably associated with irritation and hyperemia of the brain, and may be promptly relieved with small and repeated doses of gelseminum ; also, dysuria from stricture, if associated as above described, is promptly relieved with gelseminum. This remedy is an active poison. There is no danger in using it in large doses if the indications for its use are present. What is true of gelseminum, as concerns its certainty of action when properly given, is likewise true of all remedies. But it seems that many of our medical colleges spend more time on less important subjects, to the detriment of their pupils, while the study of remedies is too often neglected, and the result is, many students leave college and commence the healing art with but a meager knowledge of the correct method of using remedies successfully. What we need is more men like Brown Sequard to demonstrate the physiological, pathological and therapeutical action of remedial agents upon the organic tis-

sue, but I think the day is not far distant when disease will be antagonized by remedies that the pathological manifestations indicate, and many maladies that are now dreaded by the physician, will be successfully cured. Already this greatest of known sciences, is marked by results that are encouraging, and the positive knowledge that the profession now has of the action of opium, quinine, chloral, ergot, belladonna, veratrum, gelseminum, and many other remedies, will serve as a beacon light to the searcher for truth; and we can confidently look forward to the time when future developments in the healing art will place it as a science, permanent among the great sciences of the day. During the last two years many new remedies have been advertised; many, too, that are worthy of a trial, but it is not possible in the domain of a practicing physician to make a practical trial of so many remedies. It seems to me that a few well selected remedies, well studied, are worth more than the whole materia medica, with but vague and imperfect ideas of the same.

Berberis Aquifolium, (*Holly Leaved Barberry.*)—Found in California. Concerning the action of this remedy there is considerable dispute, arising, perhaps, from the different species, there being four, and often mistaken one for the other. It is said to be one of the most powerful alterative tonics that we have. It is used for the same class of cases for which mercury and iodide of potash are now so extensively used. It is highly spoken of in salt rheum; and, when combined with yerba santa, is said said to act promptly in relieving irritation of the lungs. Dose, from one-fourth to one drachm, three or four times a day of the fluid extract.

Jaborandi (*Pilocarpus Pennatifolius.*)—This is a Brazilian drug, possessing diaphoretic and sialagogue properties, and is, in my hands, a valuable diuretic. It is recommended in febrile disorders, pneumonia, chronic Bright's disease, diabetes, mellitus and acute rheumatism. This remedy has undoubtedly active diuretic properties, and so far as I could determine from using it, the only properties of importance. Dose of fluid extract, twenty to sixty drops.

Boldo Leaves (*Peumus Boldo.*)—This is a South American drug, new, comparatively, to the United States. It has been successfully employed in France in case of atony of various organs, when quinine could not be tolerated, or when there existed chronic hepatic torpor. The dose of the fluid extract is from one to five drops, to be increased. It seems to be especially beneficial in the treatment of rheumatism, gonorrhœa and dyspepsia. Its use is favorably spoken of in chronic catarrh of the bladder. The boldo being balsamic and carminative it is an important auxiliary in the treatment of *hepatic abscesses* whenever the febrile symptoms have been overcome.

Grindelia Robusta.—Found on the Pacific slope. This drug has a marked influence upon the mucous membranes, and has been found very useful in asthmatic and other pulmonary affections. This remedy acts kindly when combined with yerba santa, or in pulmonary troubles with anasarca, with jaborandi. Dose of fluid extract, thirty to sixty drops.

Rhus Aromatica.—This is one of our latest remedies, and so far as I could learn from testing it in several cases of enuresis, it can be relied upon. It has in my hands produced effects that no other remedy did in curing the above annoying troubles. Its action is not well understood, but deserves further study.

Grindelia Squarrosa.—This remedy is quite new, but enough is known to prove that it is quite valuable in malarial diseases, and when associated with nux vomica, is reliable in arresting chills. Dose of fluid extract, fifteen to sixty drops.

Drosera.—This is not a new remedy, for it has been known and used for years. I will refer to it merely for the purpose of calling attention to its beneficial influence in treating whooping cough. Dose of fluid extract, from five to twenty drops.

Damiana (*Turnera Aphrodisiaca.*)—This is a Mexican drug, with strong aphrodisiac properties. I have used this during the last two years, and I regard it as a valuable remedy. Dose, fluid extract, one-half to one drachm.—*F. V. Floor, M. D., in The Transactions, Youngstown, Ohio.*

Crude Semi-solid Petroleum as a Therapeutic Agent.—I send herewith a sample of crude (semi-) solidified petroleum, such as accumulates on the tubing and casings of the wells of the Pennsylvania oil regions, as it occurs in its natural state, without any manipulation.

I have used it very extensively, in the form of pills, during the last year in chronic bronchitis, asthma, catarrh, and incipient phthisis. At my suggestion, many physicians have prescribed it with the most flattering results. It is now undergoing trial in several hospitals and eleemosynary institutions of the South. I have prescribed it in over a thousand cases indiscriminately, without receiving a single unfavorable report. Most of the cases were supposed to be tuberculous; from statistics accumulating, I think the report of cures in incipient tuberculosis will show an average percentage of cures of about seventy-five per cent. In the advanced stages it affords more relief than any other remedy. I have usually advised patients to take it in connection with any medicine they were using that they thought beneficial; but most of them, after using the pills a few days, have relied upon them altogether.

The first effects of the pills were found to be expectoration, alleviation of the cough, relief to the breathing; night-sweats are diminished or altogether controlled; appetite and strength are gradually re stored. I think it will show a larger percentage of cures in acute phthisis than any other remedy. In chronic bronchitis and obscure lung troubles it acts almost specifically.

The crude petroleum has been long known as possessing valuable curative properties in chronic lung diseases; but the excessive nausea and the disagreeable eructations it produces have prevented its protracted use. I was led to the use of the semi-solid by the facility with which it can be made into pills. To further solidify it and get it into pill mass, I have used the following formula:

℞ Petroleum mass, ʒ j.
Pulv. cubebæ,
Pulv. Doveri, ää ʒ vi.

To make pill mass (pills, five grains).

This, however, may be left to the judgment of the prescriber, as something must be used to make the mass of the proper consistency I thought it advis-

able to use something beneficial. The dose of the semi-solid mass I have found to be about two to three grains, which an ordinary five-grain pill of the compound mass contains. It being harmless, no particular nicety may be paid in regard to dose; but much more than this will produce disagreeable eructations, tasting strongly of oil. I have named the semi-solid oil "crude petroleum mass" for convenience. It seems to be nothing more than the ordinary oil, less its volatile constituents, gases, etc. It accumulates on the iron of the wells that have long been flowing or pumped.*—*M. M. Griffith, M. D., in N. Y. New Remedies.*

On Tonga.—The results obtained from tonga by Drs. Ringer and Murrell fully coincide with mine. I have notes of cases of brain and kidney disease in which tonga alone succeeded in removing pain. I shall, however, confine myself to reporting the effects upon the eye. Some months ago, when commencing experiments with tonga, I had the notion, the result of conversation with patients from the Fiji Islands, that the drug might have a specific effect upon nerves which are instrumental in pain.

Of the three preparations, tonga in a bag, the watery extract, and the alcoholic extract, I found the alcoholic extract alone reliable. When dropped into a healthy eye it seemed to increase the power of accommodation, to approach the nearest point of distinct vision, without affecting the size of the pupil (though in some cases, taken in large doses internally, it caused great dilatation of both pupils). It acted beneficially in several cases of asthenopia. The sister in the eye wards gave it with great benefit to a man suffering from painful rheumatic iritis. Several patients with intolerance of light were rapidly relieved.

A most striking effect was obtained upon diminished tension of the eyeball. Two months ago a lady consulted me for intense pain in the right eyeball, with marked decrease of tension (T—2), intolerance of light, and watering, the pupil and cornea being clear, with some conjunctival redness. The intense pain had deprived her of sleep for several nights. Some of the alcoholic extract of tonga was dropped into the eye at 2, 5, 7 and 9 P. M. The following day all intolerance of light had ceased, and she had passed a good night, free from pain. She stated that the drops caused no pain, but a sense of warmth, and that the pain in the eye subsided gradually; their use was continued for several days. Remarkable was the rapidity with which the tension of the eyeball became normal and remained so.

All cases of neuralgia (supra and infra-orbital branches of the fifth nerve), with swelling of the temporal veins during the attack, were benefited. In these a teaspoonful of the extract in half a tumbler of water, and two or three more at an interval of half an hour until the pain subsided, were given.—*C. Bader, M. D., in Lancet.*

Leprosy and the Use of Gurjun Oil.—The report of the medical officer (Mr. John D. Hillis) of the Leper Asylum, Mahaica, British Guiana, for the year 1879, is chiefly interesting for the information it affords of the improved local conditions under which the lepers in that asylum are now placed, and the observations it contains on the use of gurjun oil in the treatment of leprosy. It appears that Dr. Gavin Milroy visited the asylum in 1871, and condemned the site on which it was placed, and generally the buildings, advocating their abandonment. Since then it would appear, that by the reclamation of malarious ground to the windward of the asylum, and judicious improvements of, and additions to, the buildings, considerable amendments have been made, and the general condemnation of Dr. Milroy no longer applies.

With regard to the use of gurjun oil, Mr. Hillis reports that "even in cases far advanced it is most beneficial, retarding the disease in a remarkable manner, and improving the general health." He is of opinion that it should be in general use in every leper asylum, and adds: "It is largely sought after by the patients, notwithstanding its unpleasantness, on account of its healing action on the leprous ulcerations and its appetite-giving properties." He quotes a series of cases in which he has made use of the oil, and thinks that if it were possible for cases to be brought under treatment at an early stage, on the first appearance of the leper spot, before the deposit of leprous matter had become serious, an attack, if not cut short, might at least be retarded in progress for many years by the administration of the oil.—*Lancet* (*London, Eng.*)

False Quebracho Bark.—Dr. J. Biel, of St. Petersburg, in the Pharm. Zeitung, calls attention to a false white quebracho bark which came to Hamburg. The first lot of white quebracho bark received in Hamburg was a very small quantity, and the second lot consisted of three serons. Dr. Biel, therefore, supposes that what is being used in Germany at present is not the true drug, and therefore sounds this warning note, lest a drug which promises well should be unjustly condemned before it has had a fair trial. —*British Med. Journal.*

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* The sample accompanying this communication is a dark-brown, unctuous mass, of the consistence of tallow, in thin layers of a yellowish-brown color, and somewhat transparent, and possesses the characteristic odor of petroleum, without being at all nauseating. If the substance were melted and filtered through coarse animal charcoal, it would most probably result in some such product as vaseline. The internal use of petroleum and some of its products, particularly those of a more solid consistence, has at various times been advocated. In France, the native petroleum occurring in some places, notably that obtained at Gabian, in the Department Hérault, known as *huile de Gabian*, has acquired quite a fame as a remedy for diseases of the lungs.

In the "American Dispensatory" of John Redman Coxe, the second edition of which was published in Philadelphia in 1810, the author refers to the employment of rock oil in this manner: "One of the varieties of petroleum known as Seneca oil, found near the lake of that name in New York State, has long been celebrated, especially for its value in rheumatism;" and John King, in the "American Dispensatory" (tenth ed., Cincinnati, 1876, p. 617), says: "Mecca oil, a mineral oil from a place near Mecca, Ohio, is said to be useful in bronchial, laryngeal and pulmonary affections, and is sold at most extravagant prices for such purpose."

The medicinal value of this particular preparation doubtless depends less upon the paraffin (which is probably the ingredient that renders the sample of such consistence) than upon some of the constituents of petroleum, which somewhat partake of the medicinal properties of phenol, cresol, etc. These are already used by inhalation, and other ways, in chronic lung affections, with more or less advantage. The substance here referred to simply offers another form for their administration. We are much inclined to doubt whether the writer's belief in the percentage of cures will be borne out by the results of further experience.—Ed. N. R.

Transactions of Societies.

American Medical Association.

The thirty-first annual meeting was held in the city of New York, June 1st, 2d, 3d, and 4th, in Association Hall, corner of Fourth Avenue and Twenty-Third street. It was called to order by the President, Lewis A. Sayre, M. D., of New York City.

Prayer was offered by the Rev. W. F. Morgan, D. D.

The address of welcome was given by Dr. T. Gaillard Thomas, after which the Secretary called the roll of members.

The President then delivered the annual address, in which he paid a high tribute to American medicine and surgery, and then strongly recommended the association to imitate the British Medical Association in the publication of its proceedings and papers in a journal to be published weekly, the journal to be the property of the association.

On motion of Dr. Brodie, of Michigan, a vote of thanks was tendered to the President for his address, a copy requested for publication, and the recommendation which it contained referred to a committee for report. Drs. Chaillé, of New Orleans, S. D. Gross, of Philadelphia, J. S. Weatherby, of Alabama, E. S. Dunster, of Ann Arbor, Mich., and W. R. Gillette, of New York, were appointed as such committee to report in 1881.

The following gentlemen from abroad were elected members by invitation: Drs. Howard, Hingston, David, Ostler, Dixon and Trenholme, of Montreal; D. Clark, Toronto; and Rosebrugh, of Hamilton, Canada; Joseph Hutchinson, of Liverpool, Eng.; and J. M. Gordon, of Australia.

The above gentlemen were afterwards, on motion of Dr. Gross, elected honorary members and invited to seats on the platform.

Dr. Howard, of Montreal, president of the Canadian Medical Association, briefly expressed thanks for the honor conferred.

Dr. Gross moved, with appropriate remarks, a resolution of condolence to the president for his sad bereavement in the death of his son, Dr. C. H. H. Sayre. The motion was adopted with a rising vote.

Dr. Book, of Detroit, was elected a member of the committee on nomination from Michigan.

Dr. Brodie, delegate to the Canadian Medical Association, made his report, which was accepted and ordered entered upon the minutes.

Dr. N. S. Davis, chairman of the committee on ozone, reported by letter asking further time and an appropriation of $200 for instruments, all of which was granted.

The committee on prize essays reported only one essay submitted, to which they did not feel warranted in awarding a prize, believing such prizes should be for original investigation. Adopted.

Dr. Pratt, of Michigan, from the committee appointed last year on the nine propositions submitted by Dr. Chaillé, of New Orleans, reported unfavorably on all except the fourth, and on that the committee thought it safer to await the events of time. This proposition was to substitute a periodical journal for the present volume of transactions.

Dr. Bronson, of Massachusetts, moved that a committee of five be appointed by the chair to report at the next session the practicability of formulating all the proceedings in journalistic form. Adopted, and Drs. Bronson, Dawson, Pancoast, Husted and Green were appointed as such committee.

On motion of Dr. S. C. Busey, of Washington, a resolution establishing a section on the diseases of children, to be known as Sec. VI, was adopted.

The report of the metric executive committee, though strongly opposed, was adopted. Its resolutions were only recommendatory—especially the first—which recommends the teaching and practice of the metric system in medical colleges, clinics and dispensaries, (institutions over which the association has no authority or control, they not being represented) and charges its executive committee to report on such institutions as do, and do not, teach the metric system.

(Here again the association travels out of its record, it having nothing to do with the medical teaching or medical schools).

Dr. Bush, of Buffalo, N. Y., Leaming, and Goodwillie, of New York City, Brodie, of Detroit, Mich., and Ulrich, of Pittsburg, Pa., were appointed delegates to the Canadian Medical Association for 1880. Drs. Cole, of California, Lee of Pennsylvania, Pallen, and Bulkley, of New York, were appointed delegates to European medical societies.

The report of the librarian, treasurer, and publishing committee were accepted and adopted.

The amendment to the Constitution to include in Art. II, the marine hospital service, and that it shall be entitled to one delegate, was adopted.

The amendment to the code of ethics submitted at Buffalo, known as the "Homœopathic amendment," was made the special order for the second day of meeting at Richmond next year at 10:30 A. M.

Resolutions of thanks for courtesies received by the Association were offered by Dr. Brodie, of Michigan, and unanimously adopted.

Dr. John T. Hodgen, St. Louis, Mo., was elected President; W. H. Anderson, M. D., of Mobile, Ala., 1st Vice-President; Levi G. Hill, M. D., of New Hamshire, 2d Vice-President; Henry J. Holler, M. D., of Vermont, 3d Vice-President; H. Carpenter, M. D., Oregon, 4th Vice-president; Dr. Wm. B. Atkinson, of Philadelphia, Pa., Secretary; Dr. R. Dunglison, of Philadelphia, Pa., Treasurer; Dr. Wm. Lee, of Washington, D. C., Librarian.

The lectures were well attended and many valuable papers were read and discussed.

The meeting was a harmonious one and was well attended, over 1,200 being registered. The profession of New York City, the leading drug houses, and Wm. Wood & Co., did all in their power to make the spare time of the delegates pleasant and agreeable. The Association adjourned to meet in Richmond, Va., on the first Tuesday in May, 1881.

Wayne County Medical Society.

STATED MEETING.

DETROIT, Feb. 19th, 1880.

Dr. Eaton presented a supposed aneurismal tumor, which was found resting on the fourth dorsal vertebra, taken from a man who afforded the following history: This man had been in declining health for several years, with no obvious ailments except such as might be attributed to dyspepsia. The tongue was somewhat coated, but the pulse and respiration were nearly normal. Hæmatic and other tonics induced decided improvement in the patient's general appearance.

In October, 1879, he suffered severe hæmorrhage from the nose and mouth. The blood was clear and coagulated, and came apparently from the head. The next day the patient was better, and a little blood was observed dropping from the posterior nares. The patient improved, but hæmorrhage recurred on the fourth day to the extent of about one quart. The hæmorrhage ceased before the physician could see him. He again rapidly improved until November 20th, when another free hæmorrhage occurred. The blood was of a lighter color than on former occasions, and was supposed to come from the head. No ulcers could be detected. At this time Dr. Brodie saw him in consultation. After this there was again rapid improvement.

On December 16th there was another free hæmorrhage, the blood being light colored and well mixed with air. There was considerable pain in the side in the vicinity of the diaphragm. Improvement again occurred.

December 23d hæmorrhage recurred but was readily checked, and similarly on the 24th. On December 30th the hæmorrhage was quite profuse, and also on January 12th, the blood being light colored and frothy. The hæmorrhage recurred on the 23d of January, and the patient died.

During the attacks of bleeding, acetate of lead and morphine acted well as hæmostatics, and were chiefly employed.

W. H. ROUSE, M. D., Secretary.

STATED MEETING.

DETROIT, March 4th, 1880.

Dr. Rouse read a paper on croup. (Paper published in the May number of THERAPEUTIC GAZETTE.)

Dr. Lyster is in favor of large doses of quinine in cases of membranous croup and the free use of lime water in spray—the spray being used at least twenty minutes every hour both day and night. In one case, which proved fatal, lactic acid was used, but he was not pleased with its action. Stimulants are often useful. In some cases leeches may be of service. Tracheotomy should be performed before the lungs become collapsed.

Dr. Bissell.—Membranous croup and diphtheria are distinct diseases. In croup emetics are of much service, and the room should be kept well filled with vapor.

Dr. Kaiser has been very successful in the treatment of croup, both true and spasmodic. He usually gives Turpeth mineral in one grain doses every ten minutes till free emesis; then free doses of quinine. Should the croupy symptoms return, the emetic is again required. The vapor of lime water is very serviceable.

Dr. Gray asked if any had observed a case of membranous croup in an adult. None was reported.

Dr. Klein.—Twenty-five years ago croup was very prevalent. He usually gave emetics, the sulphate of copper being preferred. Has seen casts brought up by vomiting. In one case, a child of eighteen months with a thick tongue, nitrate of silver was used with a probang. It recovered, but never spoke plainly. The difficulty of speech was not attributable to the treatment. Stimulants are often serviceable in croup.

Dr. Leonard.—Croup and diphtheria are essentially the same disease. There is no difference in the epithelium of the child and the adult, but the air passage is relatively smaller in the child and the exemption of adults from croup may be due to this fact. Quinine is the chief remedy, as it destroys the bacteria. Lime water acts similarly on the parasites. Croup is not so contagious as diphtheria on account of the patient dying before decomposition of the membrane.

Dr. Webber, of Cleveland, had a child suffering from true croup. Tracheotomy was performed, a tube inserted, and matter sucked out through the tube. The child died; the operator was taken with diphtheria on the second day, supposed to be from the croup in the child, and recovered after a very severe illness.

Dr. Brodie.—There are three diseases—spasmodic croup, inflammatory croup and diphtheria. The exudate in true croup is quite different from that observed in diphtheria. There was no diphtheria thirty years ago. It came with typhoid fever. Bleeding occurs when diphtheritic exudate is removed, but not so with the croupy. Some years ago emetics and mercurials were chiefly relied on in the treatment of inflammatory croup.

Dr. Klein.—Croup is not contagious. Never saw a case where the mother, who is peculiarly exposed, took it from her child.

Dr. Lyster.—In families where true croup was diagnosed, the other members had sore throat. Diphtheria is contagious from the length of time it runs; croup is not on account of its short duration. In one fatal case secondary deposits had formed in the lungs before tracheotomy, which was too long delayed.

Dr. Klein has known cases of croup to terminate fatally within twelve hours.

Dr. Leonard.—These must have been spasmodic, for the time was too short for the exudate. My cases died on the third day.

Dr. Clarke.—Croup has usually lasted from four to six days.

Dr. Mulheron.—It is not easy to determine the identity or non-identity of croup and diphtheria. The committee of the British Medical Association was non-committal on this point, but leaned towards their separate nature. Dr. Morrell McKenzie contends that when the exudate is in or below the larynx the disease is croup, when above, it is diphtheria.

Dr. Brodie would give mercurials in small doses for the specific action in the treatment of inflammatory croup.

Dr. Mulheron.—Small doses of mercury increase the number of red corpuscles of the blood, and are supposed to act as tonics.

Dr. Brodie.—Bacteria do not seem to be the cause of diphtheria.

W. H. ROUSE, M. D., Secretary.